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Integrated Resource Inventory

Physical Land and Forage

Classifications of the East Beaver

Lake Assessment Area

Alberta

ENERGY AND
NATURAL RESOURCES
Resource Evaluation
and Planning



DDN 5670463

ERRATA - BIOMASS - FORB, GRASS & BROWSE

| Type | Correct Biomass Values (kg/ha) | | |
|------|--------------------------------|---------|--------|
| | Forbs | Grasses | Browse |
| P2 | 1.6 | 3.6 | 0 |
| P3a | 8.4 | 7.9 | 4.6 |
| A1a | 17.3 | 7.3 | 9.2 |
| A1b | 32.8 | 9.0 | 4.1 |
| A2 | 36.1 | 7.6 | 37.7 |
| A3 | 20.7 | 5.6 | 20.3 |
| Sw1 | 32.1 | 3.8 | 2.0 |
| SB1 | 4.8 | 5.2 | 0 |
| L1 | 7.2 | 18.8 | 0 |
| L2 | 14.5 | 23.2 | 14.6 |
| B2 | 4.6 | 174.3 | 128.9 |

Page 73 - Sw1 - White Spruce - Aspen/Cranberry/Sarsaparilla

- values for average percent cover, canopy height and cover, age, DBH, stems/ha and biomass are not correct
- refer to Appendix B for correct values.

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The Physical Land Classification and Forage Classification provides an inventory of the landforms, deposits, soils, and vegetation, and identifies their characteristics and interrelationships.

The study area lies within one physiographic subregion, the Western Hills Uplands. This subregion is located in northern Alberta.

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INTEGRATED RESOURCE INVENTORY
OF
THE EAST BEAVER LAKE ASSESSMENT AREA
PHYSICAL LAND AND FORAGE CLASSIFICATIONS

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ABSTRACT

The Physical Land Classification and Forage Classification provides an inventory of the landforms, surficial deposits, soils and vegetation, and identifies their characteristics and interrelationships.

The study area lies within one physiographic subregion, the Mostoos Hills Uplands. This subregion is located in the Eastern Alberta Plains physiographic region.

During the Pleistocene epoch the area was glaciated by the Keewatin ice sheet. This left the dominant geologic parent material as glacial till. However, a sandy glaciofluvial veneer is generally found overlying the till. This veneer is of variable thickness and along with changes in surface expressions has a significant effect on the vegetation of the area. Fire has also had a major effect on the vegetation.

Two geomorphic systems have been identified in the study area on the bases of recurring patterns of landforms distinguished by genetic composition (surficial material) and surface expression.

Well drained Brunisolic Gray Luvisols dominate the soils with significant proportions of Eluviated Dystric Brunisols and Orthic Gray Luvisols. Low-lying depressional areas have Mesisols with significant amounts of Orthic and Humic Gleysols present.

The vegetation in the area makes a transition between the Dry Mixedwood Ecoregion and Moist Mixedwood Ecoregions with aspen-poplar

tree cover dominating. Eleven vegetation communities have been identified within the area boundary using the dominant tree species. These include: aspen, pine, black spruce, white spruce, tamarack and bush.

The relationships among soil, vegetation, and topography are discussed in the two integrated systems, which use the geomorphic system boundaries.

Integrated System I is characterized by medium textured, hummocky disintegration moraine having a coarse textured, glaciofluvial veneer as an overlay. Well to moderately well drained Brunisolic Gray Luvisols dominate this system. The varying topography, parent materials and drainage conditions are reflected in the presence of complex forage types. The vegetation is dominated by dense young stands of trembling aspen, with older pockets of more mature aspen or white spruce scattered throughout this area.

In Integrated System II coarse textured glaciofluvial materials have developed rapidly to well drained Eluviated Dystric Brunisols. This gently undulating system also has poorly drained, finer textured deposits yielding organic and gleysolic soils. This system also includes glaciofluvial veneered morainal "islands" which have well to moderately well drained Brunisolic Gray Luvisols. These extremes of rapidly to very poorly drained soils, in conjunction with the morainal "islands", have provided a diverse physical land base. Due to these extremes, the forest vegetation ranges from jack pine dominated stands, to aspen dominated stands, to willow/sedge vegetation.

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PREFACE

The Physical Land and Forage Classification of the East Beaver Lake area, Township 66, Range 12 and 13, West of the 4th Meridian, was initiated in the summer of 1984 at the request of Public Lands Northeast Region (St. Paul), Alberta Energy and Natural Resources. The objectives were to characterize the area in terms of landforms, soils, vegetation and pond habitat. The results of the study area are contained within this report in the form of a written text and accompanying maps. This report has been specifically designed for the requirements of the client.

The report provides a general description of the area, a discussion of methodology used in the inventory and background information on physical characteristics, soils, and vegetation of the area.

The six sections of this report include an Introduction, Methods, Physical Land Classification, Forage Classification, Shoreline Inventory and an Integrated Systems section.

The Introductory section gives background information on location, climate, vegetation, geology and soils of the area. The Methods section describes the interpretation and field sampling procedure of both Physical Land Classification and Forage Inventory. Mapping and data analysis are also discussed.

The Physical Land Classification section, which Bill Hay (team coordinator) was responsible for, describes the geomorphic systems in terms of genetic material, surficial deposits, landforms, soils and wave frequencies.

The Forage Classification section, written by Jill Veltman, describes the vegetation types, their species composition and cover percentages.

The Shoreline Inventory section, which Rick Haag was responsible for, describes aquatic and emergent vegetation, waterfowl breeding and fish habitat potential.

The Integrated Systems section is designed to illustrate the relationships between landform, parent materials, soils and vegetation. A description of these relationships should facilitate land use planning.

Two maps at a scale of 1:15 000 accompany this report. The physical land classification map shows the location and extent of the individual geomorphic systems and the forage cover map indicates the forage types.

The appendices in this report include a detailed description of the soil profiles, vegetation tables, environmental tables, mensuration tables, soil analysis methods and results, plant species list and a description of programs used to generate tables for the forage plots.

ACKNOWLEDGEMENTS

The Physical Land Classification and Forage Classification of the East Beaver Lake area was conducted jointly by the Land Classification and Resource Inventory Sections of the Resource Evaluation Branch, Resource Evaluation and Planning Division, Alberta Energy and Natural Resources.

Grateful acknowledgement is made to the following persons and departments:

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1. INTRODUCTION

The purpose of this study is to provide an integrated resource inventory based on the characteristics of the landscape. It is important to realize that sound decisions for environmental resource management require an understanding of the component parts of the landscape, encompassing both physical and vegetation attributes. This information becomes an integral part of the process in evaluating any area. Within this study both physical and vegetation components have been inventoried in order to provide a base for land evaluations to be carried out.

1.1 Location and Extent

The study area is located southeast of the town of Lac La Biche in east-central Alberta. The area lies approximately between 54°41' and 54°46' north latitude and between 111°45' and 111°55' west longitude. It includes parts of Township 66, Range 11 and 12, West of the 4th Meridian and covers approximately 4 286 hectares (16.55 square miles) (Figure 1).

1.2 Climate

The climate across the study area is Continental in nature, consisting of cold winters and warm summers. Surrounding weather stations have been utilized for climatic data since no permanent weather stations are found within the study area. Climatic data includes annual precipitation, average precipitation during growing season (May through September) and average frost-free days. The data (Table 1) suggests the average frost-free period for the area is approximately 93 days, however,

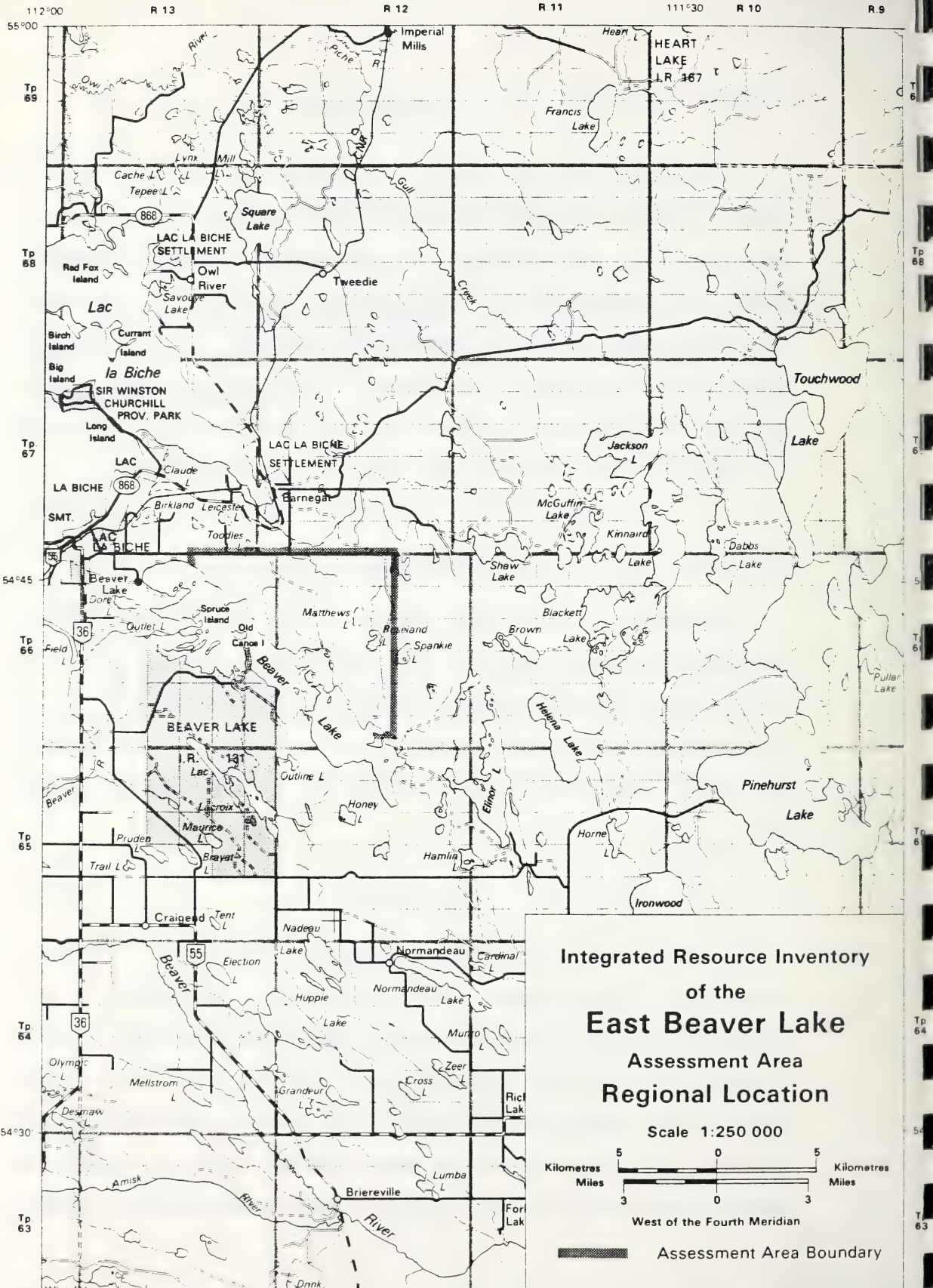


Figure 1 Regional Location Map

Table 1

CLIMATE DATA

| Weather Station | Elevation (metres) | Range | Years (# Years) | *Days with Minimum Temperature >0°C Ave. | **Annual Precipitation (mm) | **May to September Precipitation (mm) |
|------------------|--------------------|---------|-----------------|--|-----------------------------|---------------------------------------|
| Lac La Biche A | 565 | 1972-80 | (8) | 105 | 513 | 363 |
| Lac La Biche Aut | 568 | 1958-80 | (13) | 101 | 476 | 341 |
| Lac La Biche RS | 562 | 1972-78 | (5) | 104 | 562 | 337 |
| St. Lina | 632 | 1970-80 | (11) | 78 | 484 | 350 |
| Newbrook | 671 | 1954-79 | (23) | 70 | 482 | 329 |
| Iron River | 549 | 1951-75 | (23) | 102 | 419 | 298 |

*Days with minimum temperature >0°C, taken as the continuous number of days with screen temperature (1.5 metres above ground) above 0°C on either side of May 15. Averages are not adjusted, as published in Atmospheric Environment Service (AES) normals and are based on actual number of years of data.

**Precipitation is adjusted to 1951-80 normal as published in AES summaries. Year to year fluctuations have significant departure from "normal". Standard deviations range from 50 to 100 mm.

the topography indicates ranges of averages of 40-60 days in low-lying areas to more than 100 days on knolls and ridges. The average annual precipitation is about 490 mm with almost 340 mm of that falling during the growing season.

1.3 Vegetation

The East Beaver Lake Study Area lies in a transitional area between the Dry and Moist Subregions of the Boreal Mixedwood Ecoregion (Strong and Leggat, 1981).

The Dry Mixedwood Subregion is characterized by well to moderately well drained Gray Luvisols and is dominated by aspen forest while the Wet Mixedwood Subregion is characterized by moderately well drained Gray Luvisols with aspen-poplar dominating (Strong and Leggat 1981).

Aspen and balsam poplar are the dominant tree species, with mature trees ranging from 18 to 24 metres in height. The understory vegetation is varied although species such as northern reed grass, hairy wild rye, cream-colored vetchling, wild vetch, prickly rose, red osier dogwood, willow and Saskatoon-berry are common components. Secondary plant succession is primarily to white spruce, although balsam fir occurs in old growth stands. Jack pine communities occur on sandy parent material with ericaceous shrubs and lichens being major components of the understory. Poorly drained sites are characterized by an overstory of black spruce, with an understory of Labrador tea and mosses. Growth is slow on these sites due to the poor nutrient status of organic soils, high water table, lack of aeration and low soil temperature (Strong and Leggat 1981). Fire has played a major role in the development of the

forage types found within the East Beaver Lake Study Area.

The Boreal Mixedwood Ecoregion represents a transitional zone between the Aspen Parkland and the mixed conifer-deciduous ecoregions to the north and west.

1.4 Bedrock Geology

The area is underlain by gently southwesterly dipping, slightly consolidated and unconsolidated bentonitic shales and sandstones of Upper and Lower Cretaceous age. This bedrock is part of the La Biche formation which is composed of marine, dark grey and silty shales with ironstone partings and concretions (Green, 1972). Thick glacial deposits overlie the bedrock, thus exposures are not present within the study area.

1.5 Quaternary History

The study area was last glaciated in Pleistocene time by the Keewatin ice sheet. The materials (glacial till) carried by this ice sheet were deposited during the last retreat of ice from the area. During this deglaciation period, meltwaters created overland flow conditions until stabilizing into major spillway channels. This process resulted in sandy materials being deposited in thin veneers (<1 metre) throughout the area with accumulations of thicker, more stratified deposits in low-lying landscape positions.

Hummocky glacial till dominates the landscape throughout much of the study area. It is characterized by irregular knob and kettle topography with average slopes ranging from 3-20%. Slopes varied up to 40% in local occurrences. Due to the lack of alignment of the knobs into

discernible trends it is believed that this disintegration feature is uncontrolled (Gravenor and Kupsch). This is to say that major blocks of ice were cut off from the retreating glacier and melted in situ. This process is believed to have formed the well to moderately well drained knobs, whereas the poorly drained depressional areas resulted from the melting of large blocks of ice buried within the deposits. The till is relatively compact, clay loam in texture, usually with a thin (15-40 cm) layer of loamy sand to silty glaciofluvial overlay. This may indicate the presence of ice contact deposits, which may suggest sand and gravel deposits in the cores of some of the knobs.

The study area is dissected by a northwest to southeast trending subdued lowland. Sandy, well drained glaciofluvial deposits in association with poorly drained organic accumulations are found in this area. These glaciofluvial deposits have originated during the period when the ablation till on the surrounding uplands was initially deposited. The meltwaters would have flowed across the landscape until stabilizing into lowland channels. Interspersed within this channel are areas of relatively high ground which may have formed "islands" during this runoff period. These "islands" are composed of till and are likely to have thicker deposits of glaciofluvial overlays than the surrounding upland positions. Subdued to undulating surface expressions dominate in this area with slopes ranging from 0.5-5%.

The majority of the organic accumulations are found in association with the glaciofluvial deposits. This is the result of low periods of flow depositing fine textured sediments in the depressions which impedes drainage by creation of an impervious layer. Small organic deposits are

also found in the depressions of the knob and kettle topography.

A few small lakes are also found in the low-lying glaciofluvial landscape. These are generally surrounded by organic deposits, some of which are floating mats. These bodies of water are generally shallow (approximately 1-3 metres deep) and have fine textured sediments underlying them.

1.6 Soils

The dominant soils found within the study area are moderately well to well drained Brunisolic Gray and Orthic Gray Luvisols complexed with significant proportions of well drained Eluviated Dystric and Eluviated Eutric Brunisols. Organic and Gleysolic soils are found in association with both the Luvisols and Brunisols.

Soils of the Luvisolic order have a light-coloured, eluvial horizon (Ae) along with a strongly developed, characteristic illuvial horizon (Bt) which signifies the accumulation of silicate clay. The Luvisols are found in the clay loam glacial till. The soils in the Brunisolic order also have a light-coloured, eluvial horizon (Ae) but lack sufficient clay content to develop a Bt horizon. These soils are found in the sandy glaciofluvial parent material and have a reddish-brown Bm horizon with a change in structure from the original parent material. The Luvisolic and Brunisolic soils are both found under forest vegetation. Gleysolic and organic soils are found in imperfectly to poorly drained low-lying depressional areas that are saturated with water for parts or all of the year.

In the study area, gleysolic soils tend to have an organic accumulation overlying a mineral contact which displays distinct to prominent mottles of high chroma. The organic soils have developed, on average, to depths of 90 cm to 120 cm although occasionally reach depths exceeding 160 cm.

2. METHODOLOGY

The Physical Land Classification Methodology (Land Classification Group, 1978) provides guidelines for the systematic delineation of land areas based on the principle of recognizing the geomorphic nature of the earth's surface along with an understanding of structure, genesis and process as reflected in landform, parent geologic material, soil and other ecosystems.

This classification system is mainly categorical but is also hierarchical so that it has the flexibility to be used at different levels of detail. The main category is the "geomorphic unit" or local landform. It is usually in the order of 1 to 10 km across at a scale of 1:50 000.

The main objectives of this system are to differentiate and classify segments or units of the land surface based on their own inherent properties and to provide a system of levels of generalization to suite practicable scales of mapping, as well as to aid in the deductive process of correctly identifying a particular land segment or unit.

Table 2 shows the hierarchical levels of classification with the delineating criteria and scale of derivation of each level.

The main objectives of the forage inventory are to classify and establish vegetation communities that occur within the study area and determine their species composition, cover, vigor, successional status and productivity.

Table 2
HIERARCHICAL LEVELS OF CLASSIFICATION (PLC)

| <u>Classification Level</u> | <u>Delineating Criteria</u> | <u>Scale of Derivation</u> |
|-----------------------------|---|-------------------------------|
| 1. Physiographic Region | Elevation, relief and structural geologic formations | 1:1 000 000 to 1:3 000 000 |
| 2. Physiographic Subregion | Definite patterns of relief, geology, geomorphology and stream pattern and density | 1:500 000 to 1:1 000 000 |
| 3. Geomorphic System | Recurring patterns of landforms distinguished by genetic composition (surficial materials), surface expression, integration of soils (order-great group level - CSSC, 1978) | 1:50 000 to 1:250 000 |
| 4. Geomorphic Unit | Relatively homogeneous areas of land with inherent properties of genetic composition (surficial material), surface expression, texture, slope (type and percent), aspect, erosional and depositional modifiers, integration of soils (subgroup-series level-CSSC, 1978) and internal drainage (CSSC, 1978). | 1:5 000 to 1:50 000 |

The vegetation communities are delineated into "polygons" or "forage units" based on existing forest and landform information derived from Phase III maps and the 1:15 000 Physical Land Classification map.

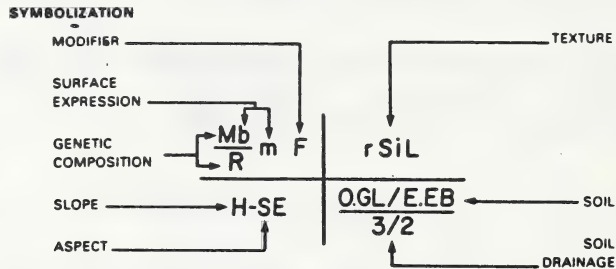
These interpretations of vegetation types are illustrated on the accompanying map at a scale of 1:15 000.

2.1 Interpretation

The classification of the East Beaver Lake Assessment Area was based primarily on a literature review of previous studies done in the area, the systematic interpretation of aerial photographs along with the integration of field data.

The preliminary interpretation (mapping) was initiated to delineate the geomorphic systems within the study area. Black and white air photos, at a scale of 1:15 000 (1970) and 1:30 000 (1982) were used in this procedure. Delineated areas were used for the basis of the physical land classification and forage inventory. For the purpose of the physical land classification, further delineations were then defined and mapped as geomorphic units (homogeneous areas of land with inherent properties, parent material, topography, soils, drainage and landforms) which were placed within the boundaries of each geomorphic system. The distribution of field sampling was based primarily on these preliminary lines. The final physical land classification is a composite of the information obtained from the aerial photographs, fieldwork and the data from previous studies.

An example of a Physical Land Classification map symbol which would be found in each geomorphic unit is shown below. A more detailed description of each symbol is located on the map legend.



Symbols of Proportion (=, /, //)

The relative proportions of the two-term components are approximately:

- 50-52% = 45-50% (approximately equal)
- 55-70% / 30-45% (more than)
- 70-90% // 10-30% (considerably more than)

*Symbols of proportion do not necessarily correspond in all four quadrants of the symbolization. Where no symbol of proportion is present between two surface expressions, it implies that both surfaces are coincidental.

Stratigraphic Symbol (———)

The symbol indicates one material overlying another with the overlying material being either a blanket or veneer.

- $\frac{Mb}{R} m$ - A morainal blanket overlies bedrock with an overall rolling surface expression
- F - The genetic material is failing
- rSiL - The texture is a rubby silt loam
- O.GL/E.EB - The soils are mainly Orthic Gray Luvisols with significant sections of Eluviated Eutric Brunisols
- 3/2 - The soil drainage is mainly moderately well drained with significant sections of well drained areas
- H-SE - Slopes of 46-70% with a south-east aspect

Line Symbolization

- Physiographic Region Boundary
- Physiographic Subregion Boundary
- Geomorphic System Boundary
- Geomorphic Unit Boundary

The forage inventory which establishes vegetation communities that occur within the study area, was initiated by using Phase III photo interpretation. This mapping of forest cover types was completed on the 1:15 000 black and white photographs. Each delineation includes information on species, stand density, canopy height, age and commercial

potential. Areas that are not forested receive a symbol which denotes the particular vegetation type, i.e. willow, bog, etc. These delineations are found on the accompanying forage map. These forest cover types were used as a basis for plot and site selection for field assessment.

An example of the Forage Inventory map symbol is as follows:

A₃ - Aspen/Cranberry/Sarsaparilla

For further explanation refer to the map legend.

2.2 Field Procedures and Sampling

Fieldwork was conducted during August and September, 1984, using ground vehicles. A shoreline field survey was also conducted, utilizing a helicopter to reach inaccessible areas. Field sites were selected on the basis of initial air photo interpretation which characterized individual systems, units and forest cover types. At each site data was collected for physical land parameters and forest vegetation.

2.2.1 Physical Parameters

At each site parent geologic material, soil, landform, slope and subsurface drainage were recorded. These data elements were examined at all roadcuts and erosional scarps in addition to specific sites where soil pits were dug. Soils were classified according to the Canadian System of Soil Classification (CSSC, 1978) into soil subgroups within the various orders. The subgroups were determined by soil properties measurable in the field, such as texture, color, horizon thickness,

structure, consistency, carbonate reaction, stoniness and pH. Representative samples of the various soils were collected for laboratory analysis.

2.2.2 Vegetation Data

A detailed vegetation description was done at each of the 22 sample plots. A 10 x 10 m plot was established to determine vegetation strata based on height and growth form of the various species. A list of all the species was then made for each stratum with percent coverage values and vigor ratings assigned to each. If a particular species occurred in several strata, cover and vigor estimates were assigned to it in each stratum. Total cover estimates were also made for each stratum.

The plant species were listed according to the following vegetation layers:

- A¹ **Dominant trees** that make up the upper part of height distribution.
- A² **Main tree canopy** - trees greater than 10 m in height that make up the main layer of tree cover.
- A³ **Subordinate trees** - trees and other woody plants 5 m to 10 m in height.
- B¹ **Tall shrubs** - woody plants between 2.5 m and 5 m tall shrubs, tree regeneration and suppressed trees are included.
- B² **Low shrubs** - woody plants less than 2.5 m tall.
- C **Herbs** - broad-leaved herbaceous species regardless of their height.
- D **Graminoids** - grasses and sedges regardless of height.
- L **Lichens** - growing on the ground, excluding dead wood.

M **Mosses** - excluding those on dead wood

E **Epiphytes** - growing on living trees

Unknown plant and bryophyte specimens were collected for later identification or sent away for professional confirmation.

2.2.3 Environmental Data

Site information collected includes: elevation, slope, aspect, exposure, shape of slope, microrelief, ecological moisture regime, drainage conditions, flood hazard, site disturbance, surface substrate and general comments about the site.

2.2.4 Tree Mensuration Data

The collection of quantitative data to determine productivity of forest stands was done using fixed area circular plots. One of four plot sizes was used; .01, .02, .03, .04 ha, depending on the stand density and a requirement of approximately 30 trees per plot.

Measurements of all trees in the plot over 7.0 cm at breast included diameter at breast height (DBH) and total height. Two or more increment cores were extracted from dominant or codominant trees of each species present in the plot for age determination. Mensurational procedures of the Timber Management Branch of Alberta Forest Service were followed.

2.3 Data Analysis

The soils collected for laboratory analysis were tested for texture, pH, %C, cation exchange capacity and exchangeable cations,

available nitrogen, phosphorous and potassium, and electrical conductivity. A description of the procedures used and results can be found in Appendix A.

This analysis was used to aid in proper soil classification, identity, in particular whether the Brunisols were Eutric or Dystric. The laboratory textures were used to check against the field textures to enhance the quality and reliability of the map and report. The chemical analysis was used for fertility information, as well as background relationship with vegetation associations and can be used in future agriculture assessments.

The vegetation plot data was grouped by species composition (plots having similar species present and cover values, to define forage types). The data was computerized, with the information stored on the University of Alberta system. The analysis of the data was conducted using the Klinka-Phelps vegetation program, environmental site program, and mensuration program. The information gathered into Beaver Lake was also combined with the Lakeland Study Area to illustrate in tabular format any similarity between the two study areas. A detailed description of the programs and the actual tables are given in Appendix C.

2.4 Mapping

Initial mapping as described in Section 2.1 (Interpretation) was done on aerial photographs with the aid of Phase III interpretation and preliminary physical land classification maps. Final mapping was done on a 1:15 000 orthophoto using the final physical land classification lines as a base. The forage map units were delineated on the basis of the

relationships established through field sampling, vegetation communities and geomorphic units.

Each forage map unit is assigned a forage type symbol. A unit may contain a percentage of two different forage types. An example of symbol mapping is as follows: $A_1^5 - A_3^5$. This represents an area with 50 % forage type A_1 and 50 % forage type A_3 . The information for the physical land classification map symbol is presented in a quadrant. For further explanation refer to the map legend.

3. PHYSICAL LAND CLASSIFICATION

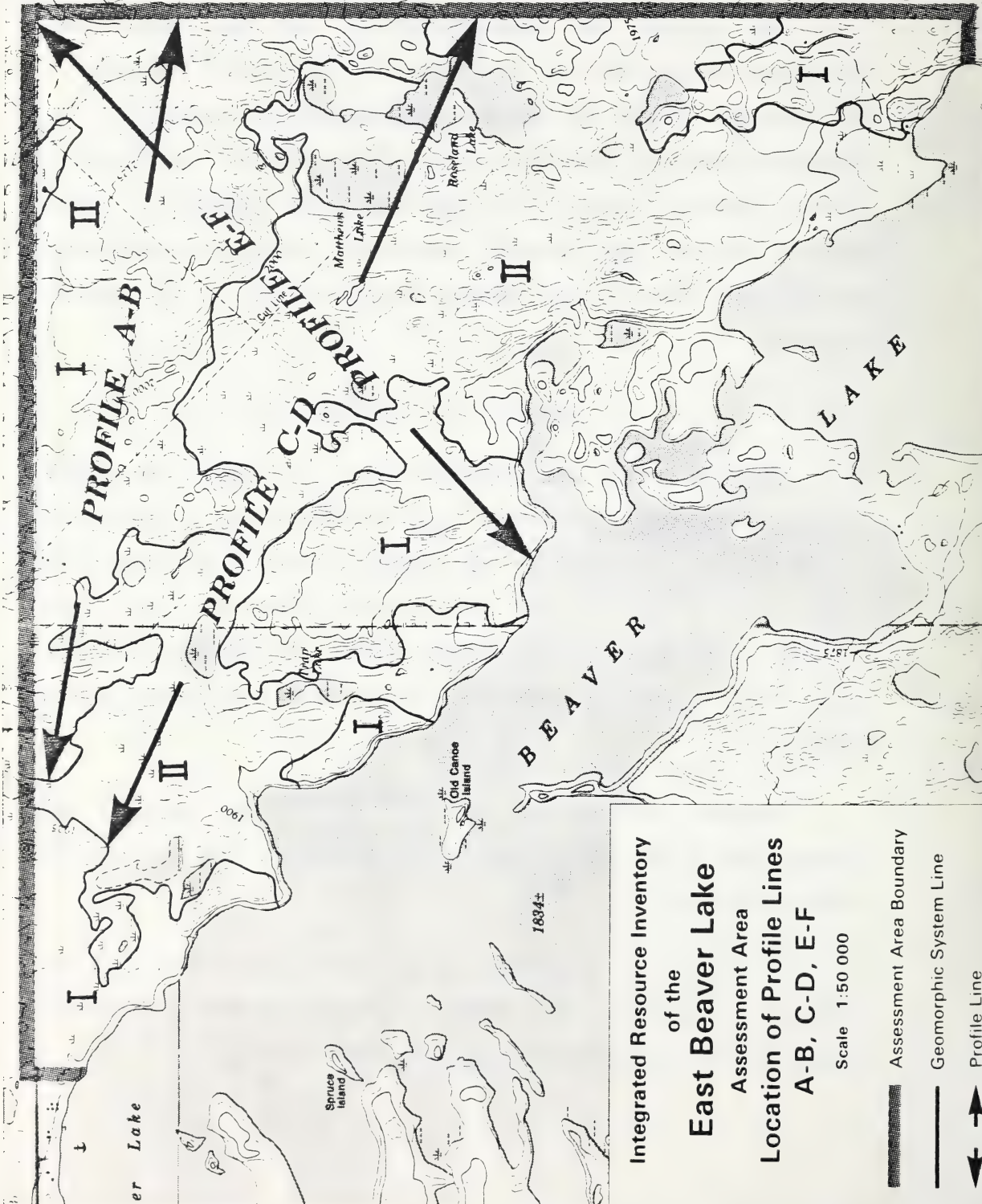
The Physical Land Classification of the East Beaver Lake Assessment Area provides data that deals with the physical attributes of the landscape, namely, the geology, geomorphology and topography. The landscape within the study area is the direct result of varying parent geologic materials having being deposited during glaciation. These deposits have not been reworked extensively during the post-glacial period, hence make up the dominant characteristics of the present landscape.

3.1 Physical Land Characteristics

The East Beaver Lake Assessment Area lies within the Eastern Alberta Plains Region. Elevations range from 555 metres at Beaver Lake to approximately 675 metres in the northwest corner of the study area. Local relief varies across the landscape from 2-5 metres on the subdued lowlands to 4-9 metres on the hummocky uplands with the greatest relief being 76 metres on a gradual slope leading from the lowlands to the uplands.

Hummocky disintegration moraine dominates the landscape and contains many of the features associated with ablation till, such as till knobs and kettles.

A subdued to undulating lowland cuts across the area from northwest to southeast. This feature is interspersed with glaciofluvial sands, organic accumulations and numerous bodies of water.



Integrated Resource Inventory
of the
East Beaver Lake
Assessment Area
Location of Profile Lines
A-B, C-D, E-F

Scale 1:50 000

- Assessment Area Boundary
- Geomorphic System Line
- Profile Line

The small size of the study area makes it difficult to identify an overall drainage pattern. However, it seems to exhibit a deranged to kettle hole pattern of medium density with the lakes in the eastern portion having inlet streams but no outlet streams, and vice-versa in the western portion.

3.1.1 Topographic Wave Frequency

For the purpose of this study wave frequency is defined as topographic variations over distance, expressed by amplitude and frequency. This has been utilized as an indicator of the surface variability across a particular landscape.

Three profiles were selected (Figure 2); profile A-B in the veneered morainal upland, profile C-D in the glaciofluvial lowland, and profile E-F. These profiles are graphically expressed in Figures 3, 4, and 5 plotting elevation against distance. The results are presented in Tables 3, 4, and 5 including the wave frequency per one half-mile, the wave amplitude in feet/metres, the average slope per one half-mile and the range of slopes within the one half-mile segment.

3.2 Geomorphic Systems

The East Beaver Lake Assessment Area has been divided into two geomorphic systems (Figure 6) in accordance with the Physical Land Classification Methodology (Land Classification Section, 1978). The landscape has been separated into geomorphic systems based on recurring patterns of landforms distinguished by genetic composition (surface material) and surface expression.

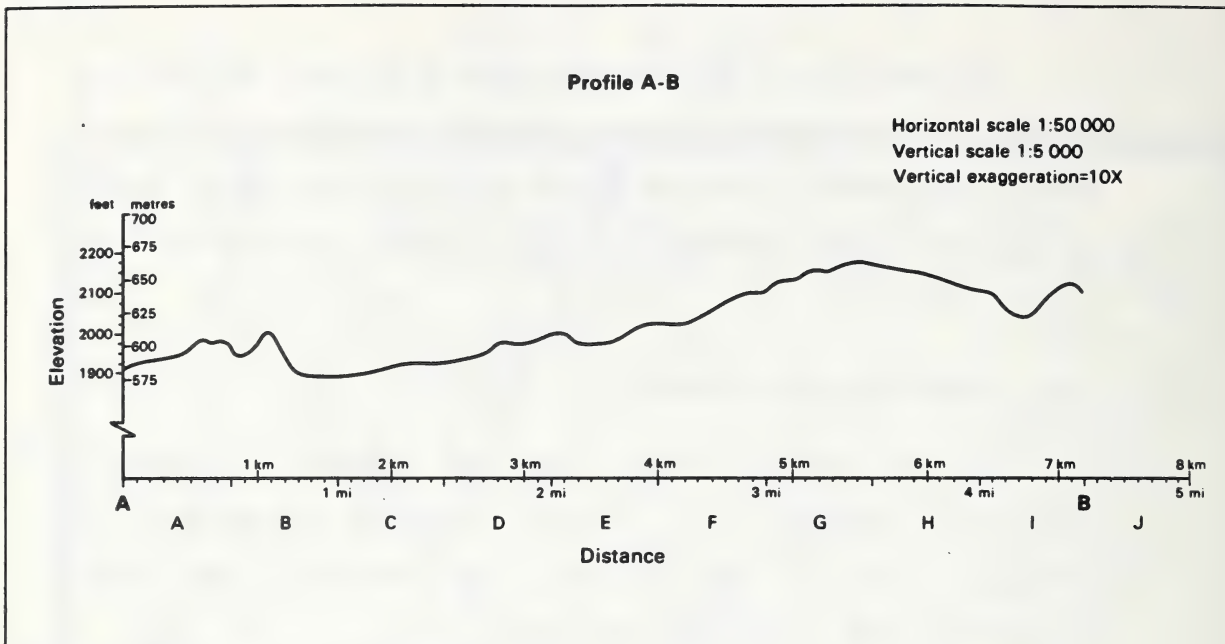


Figure 3: Veneered Morainal Upland (Geomorphic System I)

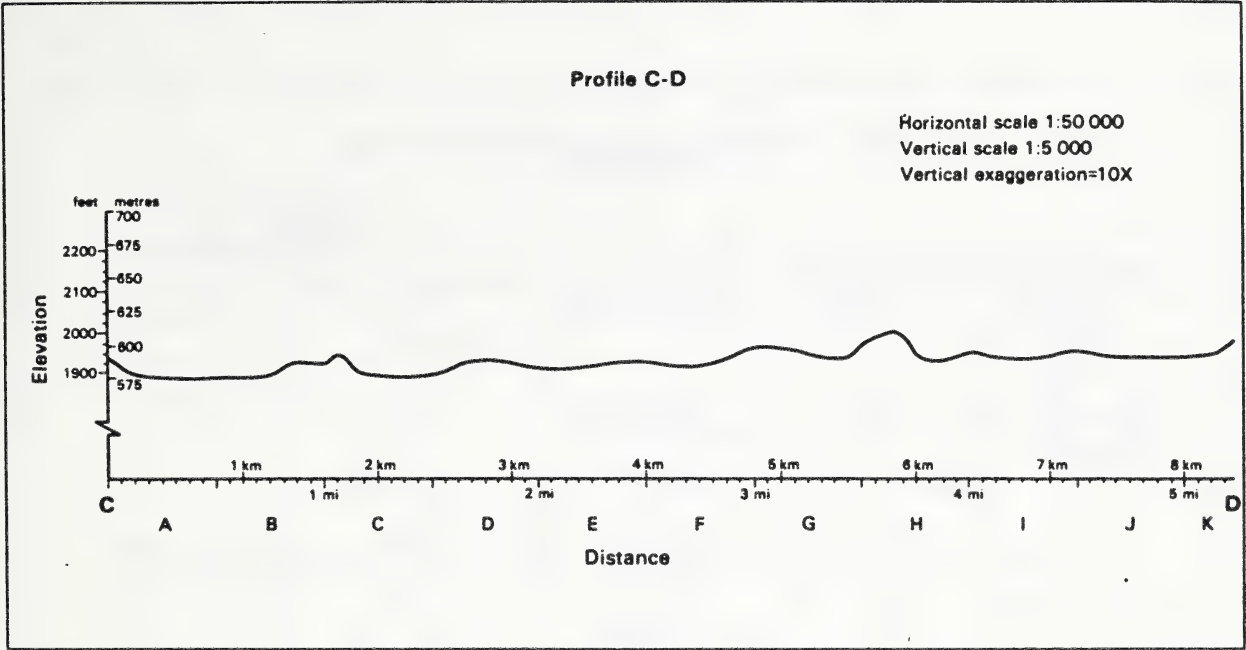


Figure 4: Glaciofluvial Lowland (Geomorphic System II)

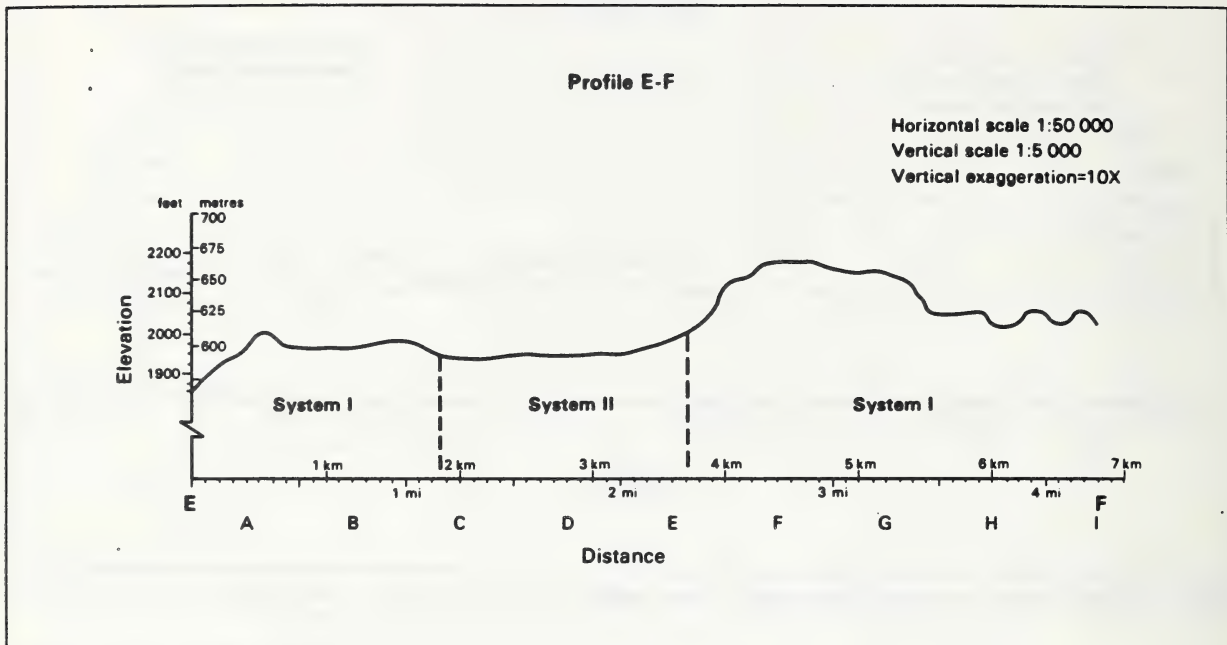


Figure 5: Geomorphic System I and II

Table 3
 VENEERED MORAINAL UPLAND (GEOMORPHIC SYSTEM I)
 PROFILE A-B

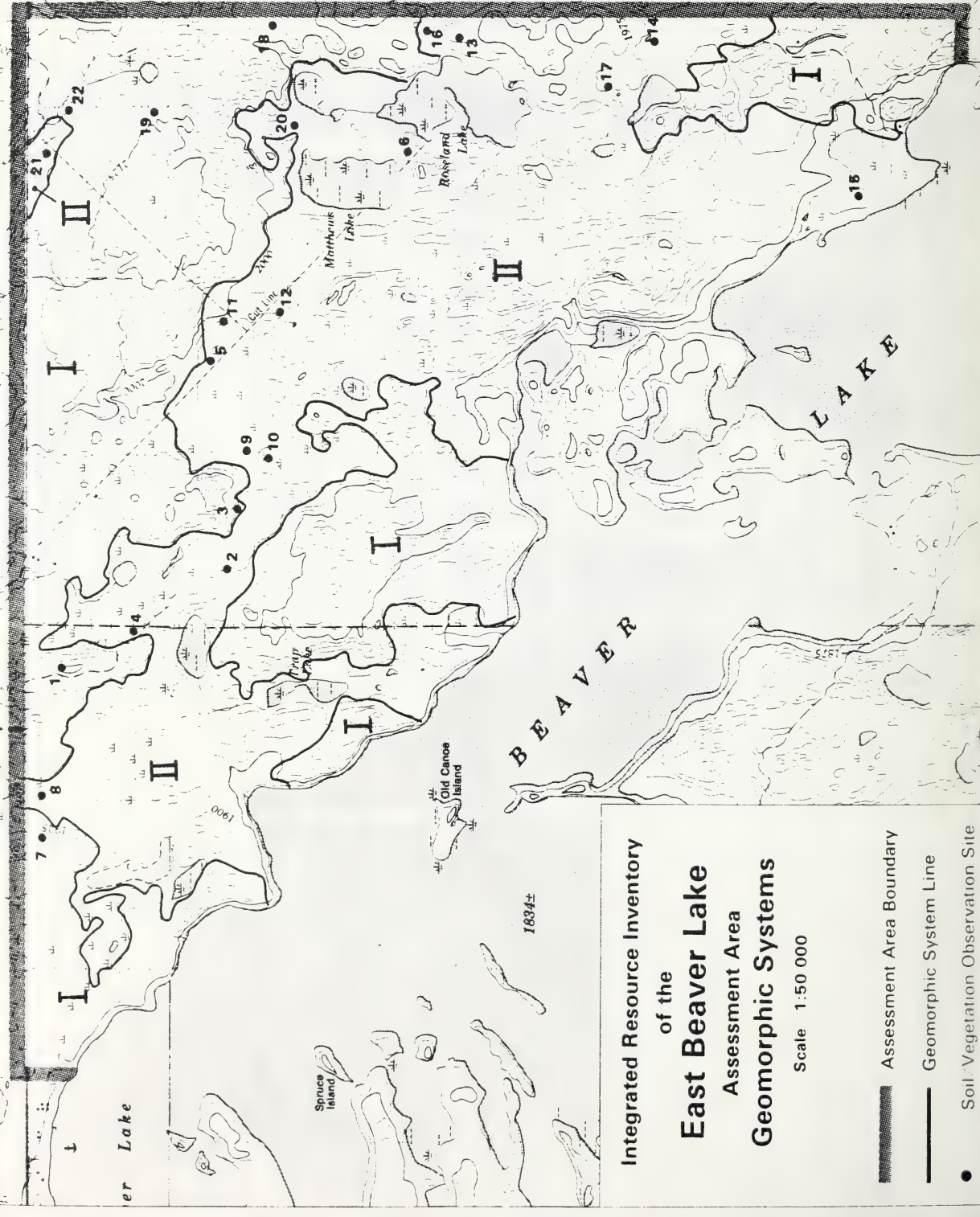
| 1/2 Mile | Wave Frequency/ 1/2 Mile | Wave Amplitude (Feet/Metres) | Average Slope (%)/1/2 Mile | Slope Range (%)/1/2 Mile |
|----------|-----------------------------|---------------------------------|-------------------------------|-----------------------------|
| A | 3/4 | 50/15.24 | 2.03 | 1.52- 2.53 |
| B | 1 1/2 | 100/30.48 | 7.83 | .76-15.15 |
| C | 1/4 | 30/ 9.14 | .95 | .95 |
| D | 1/2 | 75/22.86 | 2.84 | 2.84 |
| E | 1 1/2 | 50/15.24 | 3.28 | 1.01- 5.05 |
| F | 1/2 | 75/22.86 | 2.66 | 1.52- 3.79 |
| G | 1/2 | 75/22.86 | 4.64 | 1.52- 7.58 |
| H | 1/2 | 75/22.86 | 2.84 | 2.84 |
| I | 1 1/4 | 75/22.86 | 4.59 | 3.03- 5.68 |

Table 4
GLACIOFLUVIAL LOWLAND (GEOMORPHIC SYSTEM II)
PROFILE C-D

| 1/2 Mile | Wave Frequency/ 1/2 Mile | Wave Amplitude (Feet/Metres) | Average Slope (%)/1/2 Mile | Slope Range (%)/1/2 Mile |
|----------|-----------------------------|---------------------------------|-------------------------------|-----------------------------|
| A | 1/2 | 35/10.67 | 4.01 | .43-7.58 |
| B | 1/2 | 35/10.67 | 3.12 | .76-7.58 |
| C | 1 1/2 | 60/18.29 | 5.26 | .61-7.58 |
| D | 1/2 | 25/ 7.62 | 2.08 | .61-3.54 |
| E | 1 | 10/ 3.05 | .38 | .38 |
| F | 1/2 | 35/10.67 | 1.33 | .76-1.89 |
| G | 1/2 | 20/ 6.10 | .76 | .76 |
| H | 1 1/2 | 60/18.29 | 4.88 | 1.01-7.58 |
| I | 1 | 10/ 3.05 | .38 | .38 |
| J | 1/2 | 10/ 3.05 | .38 | .38 |
| K | 1/2 | 35/ 3.05 | 3.41 | 1.52-5.30 |




Table 5
GEOMORPHIC SYSTEMS I AND II
PROFILE E-F

| 1/2 Mile | Wave Frequency/ 1/2 Mile | Wave Amplitude (Feet/Metres) | Average Slope (%)/1/2 Mile | Slope Range (%)/1/2 Mile |
|----------|-----------------------------|---------------------------------|-------------------------------|-----------------------------|
| A | 5/8 | 150/45.72 | 6.07 | 4.55- 7.58 |
| B | 1/2 | 15/ 4.57 | .56 | .56 |
| C | 1/2 | 30/ 9.14 | 1.33 | .75- 1.9 |
| D | 1 | 15/ 4.57 | .38 | .38 |
| E | 1/4 | 150/45.72 | 8.85 | 2.56-15.15 |
| F | 3/4 | 100/30.48 | 4.74 | 1.89- 7.58 |
| G | 1/2 | 100/30.48 | 6.31 | 1.26-11.36 |
| H | 1 | 25/ 7.62 | 6.23 | .50- 9.1 |
| I | 1 1/2 | 25/ 7.62 | 6.57 | 1.52- 9.1 |



Integrated Resource Inventory
of the
East Beaver Lake
Assessment Area
Geomorphic Systems

Scale 1:50 000

-  Assessment Area Boundary
-  Geomorphic System Line
-  Soil Vegetation Observation Site

These geomorphic systems have been further divided into geomorphic units. The units have been delineated as relatively homogeneous areas of land with inherent properties of surface material, surface expression, texture, slope (type and percent), aspect, erosional and depositional modifiers, integration of soils (subgroup level - CSSC, 1978) and soil drainage (CSSC, 1978). Variability between units are measured by any one or combination of two or more attributes as defined above. Though there is this variability, all units relate to the common but more general criteria at the geomorphic system level of genetic composition and surface expression.

3.2.1 Geomorphic System I - Veneered Hummocky Moraine

Geomorphic System I includes the upland portions of the study area (Figure 6). It covers approximately 2 007 ha (7.75 sq. mi.) or 47% of the study area. It has been classified as a morainal system consisting of well compacted till that is non-stratified containing a heterogeneous mixture of particle sizes. It was transported beneath, beside, within and in front of the Laurentide ice sheet. It has been modified very little by post glacial environmental aspects.

The landscape of the system is characterized by irregular knob and kettle terrain (hummocky disintegration moraine) indicative of an ablating glacial environment. Surface expressions range from dominantly hummocky with slopes of 6 to 15% to undulating and inclined with slopes ranging from 3 to 30%. Locally, short slopes of up to 40% can be found. A profile diagram of the general topography is illustrated in Figure 3, profile A-B. This shows an overall view of the distribution of slopes

across this system. The till deposit is compact, relatively low in stone content (averaging 5 to 15%, small stones) with a range of textures from clay loam to sandy clay loam. A glaciofluvial veneer overlies the entire morainal system. It ranges from 15 to 40+ cm in thickness and has a sandy to sandy loam texture. Due to the hummocky disintegration nature of the moraine system, some of the knobs may have sandy cores which could indicate thicker sandy deposits being found within this system. Depressional areas, of varying sizes, have accumulated organic matter.

The soils are dominated by moderately well to well drained Brunisolic Gray Luvisols and are found throughout this system on gently sloping hummocky to undulating terrain. Previous studies carried out in the surrounding area (Kocaoglu, 1975; Kocaoglu and Bennett, 1983) indicate that these soils occupy areas where the sandy loam glaciofluvial overlays exceeded 15 cm in depth. This relationship was also observed in the study area. Generally the glaciofluvial veneers display a well developed sandy loam to silt loam textured Ae horizon overlying a sandy loam to loam textured Bm horizon. A sandy loam transitional horizon (AB), about 10 cm thick, was occasionally found underlying the Ae horizon. Below the glaciofluvial overlay a clay loam to clay textured Bt horizon has developed in the moraine. The C horizon ranges in texture from sandy clay loam to clay. The sola (A and B horizons) is generally 30 to 50 cm thick, strong to moderately acid (pH 4.4 to 6.0) in reaction and low in organic matter content.

Moderately well to well drained Orthic Gray Luvisols occur in significant proportions, especially in areas with steep slopes (25% and

greater) having inclined surface expressions. These soils are found in areas where the glaciofluvial veneers are less than 15 cm thick. An Ae horizon, and often an Ae₂ or transitional AB horizon is found in the sandy loam overlay. A clay loam textured Bt horizon has developed in the underlying till. The C horizon is clay loam textured till. The pH of these soils is moderately acid (pH 5.0-5.5) and low in organic matter content.

The internal drainage conditions in the depressional and lowlying areas have had significant effects on the development of soils in these areas. The poor to very poor drainage has lead to excess moisture conditions causing Gleysolic soils with distinct to prominent mottles of high chroma to develop. Orthic Gleysols and Rego Humic Gleysols are the most common of these soils. The lowlying areas also have accumulated organic deposits where Terric Mesisols and Terric Fibrisols have developed.

The variability of the units within this system is influenced by the character of the disintegration moraine.

Detailed soil descriptions of sites 1, 3, 7, 18, 19 and 22 can be found in Appendix A. These field sites are all located in System I.

3.2.2 Geomorphic System II - Glaciofluvial Lowland

Geomorphic System II has been classified as a glaciofluvial system due to the dominance of outwash deposits. The system is situated in the lowland terrain of the study area and covers approximately 2 279 ha (8.8 sq.mi.) or 53% of the area.

Glaciofluvial deposits were transported and deposited by glacial meltwaters that flowed upon, within, under and beyond the Laurentide ice sheet boundaries as it retreated across the study area. Generally the landscape is subdued to undulating with gentle slopes ranging from 2 to 5%. However, within this system, there are several morainal outcrop units which form "islands" having a glaciofluvial veneer. These glaciofluvial veneered hummocky moraine "islands" have slopes ranging from 6 to 15%. Profile C-D (Figure 4) is indicative of the undulating to subdued nature of the topography found within this system. In comparison, profile A-B (Figure 3) exhibits the more varied topography found within geomorphic system I which is the result of variations in general elevation and slopes. The lowland nature of geomorphic system II is more readily apparent when compared with the upland characteristics of geomorphic system I as depicted in profile E-F (Figure 5).

The glaciofluvial materials are dominantly of sand to sandy loam texture. Various glacial meltwater episodes of high and low velocity flows have resulted in stratified layers of deposits. These layers range from gravel with coarse sand in voids to finer textured sandy clay loams and silt loams. The presence of the morainal "islands" indicate that the thick glaciofluvial sediments are underlain by till which was eroded by the meltwater flows. This process has resulted in moraine-controlled landforms found locally. The morainal "islands" are composed of sandy clay loam to clay loam till having overlying sandy to sandy clay loam glaciofluvial veneers and blankets. Several depressional areas across this system are now occupied by small lakes and ponds.

Rapidly to well drained Eluviated Dystric Brunisols (pH <5.5) are found in the subdued to undulating topography where glaciofluvial deposits exceed 50 cm in thickness. These soils generally exhibit a sandy loam Ae horizon approximately 8-12 cm thick. The Bm horizon has textures ranging from sandy loam to sand, and in some cases contains a gravel component due to the glaciofluvial nature of the parent material. The underlying C horizon consists of coarse sand with minor gravel components. The pH of these soils ranges from strongly acid to moderately acid (pH 4.2 to 5.1). Some Eluviated Eutric Brunisols which have similar horizon development can be found in the system. Their pH readings are >5.5.

The glaciofluvial veneers are thin on the moraine-controlled landforms. This has resulted in the development of well to moderately well drained Brunisolic Gray Luvisols similar to those found within geomorphic system I.

Gleyed Brunisolic Gray Luvisols and Gleysols can be found locally at the base of slopes. These have developed due to poor internal drainage, in combination with receiving groundwater discharge from the morainal upland system. Level to depressional terrain with poor drainage has developed Orthic Gleysols and Organic soils due to being water saturated for all or parts of the year. Some of the lakes and ponds in this system possess floating mats of organic matter around the edges.

Detailed descriptions of field sites located within this system are located in Appendix A. These include sites 2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20 and 21.

4. FORAGE CLASSIFICATION

The purpose of the forage inventory is to establish types of vegetation communities that occur within the study area, to determine their species composition, cover, vigor, successional status, and productivity. These vegetation communities are delineated on the 1:15 000 map which accompanies this report.

4.1 Forage Types

Eleven forage types were identified in the East Beaver Lake study area. The forage types have been separated on the basis of geomorphology and dominant species. They are described in the section to follow in a sequence on the most xerophyllic type to the next hydrophyllic type. They are grouped by dominant tree species.

The following forage types were identified within the East Beaver Lake study area: Pine/Bearberry/Lichen (P2)*, Pine/Alder/Blueberry (P3), Aspen/Alder/Twinflower (A1a) and Aspen/Willow/Sarsaparilla (A1b), Aspen/Poplar/Cranberry (A2), Aspen/Cranberry/Sarsaparilla (A3), White Spruce-Aspen/Sarsaparilla (Sw1), Black Spruce/Labrador Tea/Moss (SB1), Black Spruce-Tamarack/Sedge/Moss (L1), Tamarack/Birch/Sedge/Moss (L2) and the Willow Sedge (B2)* forage types.

The 1:15 000 map which accompanies this report illustrates the distribution of these forage types.

* In order to effectively compare the East Beaver Lake forage types to those found in the Special Lakeland study area, the same association names and numbers were assigned to both study areas (where applicable).

4.1.1 Jack Pine Forage Types

All of the jack pine forage types are found on glaciofluvial parent materials with well to rapidly drained soils, predominantly Eluviated Dystric Brunisols and Eluviated Eutric Brunisols. Species cover and diversity generally decrease as the site conditions become more arid. The driest sites are devoid of shrubs and have a minimum of forbs and grasses. The ground cover is dominated by lichens and some mosses. Tall shrubs, such as green alder, and ericaceous shrubs become more prevalent as the sites become more hygric. Trembling aspen, paper birch and white spruce appear either as intermediates or codominants with increased moisture. Forb, grass and moss cover is more evident (Kocaoglu and Bennett, 1983).

In the East Beaver Lake study area, jack pine was often observed to be growing on the ridges of rapidly drained soils proximal to wetlands. In such cases, black spruce or tamarack were found growing with the pine. Since jack pine is dependent on fire for regeneration (serotinous cones), its dominance on xeric sites is maintained through intense burning. Black spruce, which has a shallow root system, is readily destroyed by fire.

Small areas of jack pine are found throughout the glaciofluvial system (geomorphic system II). These stands are not large but they are a constant component of the East Beaver lake forage complex.

There were two pine types identified for the East Beaver Lake study area: Pine/Bearberry/Lichen (P2) and Pine/Alder/Blueberry (P3).

4.1.1.1 P2 - Pine/Bearberry/Lichen
(Pinus banksiana/Arctostaphylos uva-ursi/Cladina rangiferina)

Pine/Bearberry/Lichen (P2) type is identified by the following characteristic species combinations and association characteristics.

Vegetation

Characteristic Combination of Species

| <u>Layer</u> | <u>Average Percent Cover</u> | |
|-------------------------|------------------------------|---------------------------------|
| Trees | (15) | |
| Jack pine | | Pinus banksiana |
| Shrubs | (75) | |
| Green alder | | Alnus crispa |
| White spruce | | Picea glauca |
| Labrador tea | | Ledum groenlandicum |
| Blueberry | | Vaccinium myrtilloides |
| Forbs | (3) | |
| Bunchberry | | Cornus canadensis |
| Fireweed | | Epilobium angustifolium |
| Strawberry | | Fragaria virginiana |
| Grasses | (5) | |
| Northern reed grass | | Calamagrostis canadensis |
| Indian rice grass | | Orzopsis pungens |
| Mosses | (2) | |
| Haircap moss | | Polytrichum juniperinum |
| Golden moss | | Tomenthypnum nitens |
| Lichens | (30) | |
| Reindeer moss | | Cladina rangiferina |
| Epiphytes (medium-high) | | Usnea subfloridana |
| | | Cetraria halei |
| | | Cetraria pinastri |
| | | Hypogymnia physodes |
| | | Parmelia sulcata |
| | | Bryoria fuscescens |

Association Characteristics

| | |
|--------------------|-------------|
| Canopy height (m): | 11 |
| Canopy cover | : 15% |
| Age (y) | : 37 |
| DBH (cm) | : 11.5 |
| Stems/ha | : 625 |
| Species present | : jack pine |

Vegetation Comments

The Pine/Bearberry/Lichen type (P2) is characterized by an open jack pine overstory of fairly even age and consistent height. There is a very sparse shrub layer consisting of scattered specimens of green alder and white spruce. The majority of the vegetation is composed of ericaceous shrubs such as Labrador tea and blueberry. These species reflect the xeric conditions and acidic nature of the soils. Grasses are not predominant. There is a substantial cover of bryophytes, particularly **Cladina rangiferina** (reindeer lichen). Epiphytes were found to be in medium to high cover with **Usnea subfloridana** (old man's beard) as the main constituent (Vegetation and Mensuration Tables, Appendix B).

This East Beaver Lake type bears a resemblance to the same type identified for the Special Lakeland area (Kocaoglu and Bennett, 1983). A comparative summary and Special Lakeland biomass values appears on Table 6. Plates 1 and 2 show a representative Pine/Bearberry/Lichen (P2) forage type and typical vegetation.

Table 6

COMPARATIVE SUMMARY OF THE PINE/BEARBERRY/LICHEN (P2) TYPE

| East Beaver Lake Forage Type | Special Lakeland Forage Type (page 42) |
|--|---|
| Major Species | |
| jack pine, blueberry, Labrador tea, reindeer lichen | jack pine, bearberry, bog cranberry, lichen |
| Minor Species | |
| bunchberry, fireweed, wild strawberry, haircap moss | prickly rose, Saskatoon- berry, blueberry, harebell, wild lily-of-the valley, haircap moss |
| Age | |
| 36.9 | 56.4 |
| Parent Materials | |
| Glaciofluvial | Glaciofluvial |
| Biomass* | |
| not collected | Forbs 169 kg/ha Grasses 367 kg/ha Browse |

* Biomass values were not gathered for East Beaver Lake, as the study was conducted in late August and early September. Biomass samples collected at this time would not reflect the maximum productivity.



Plate 1. Representative
association of the Pine/
Bearberry/Lichen type
(P2).



Plate 2. Typical vegetation of the Pine/Bearberry/Lichen type (P2).

Site/Landscape Comments

The Pine/Bearberry/Lichen type is restricted to subxeric and xeric sites where there is a thick overlay of sandy glaciofluvial materials. Coarse textured, rapidly drained Eluviated Dystric Brunisols are the predominant soils in these areas. The Pine/Bearberry/Lichen forage type is commonly found on sandy ridges bordering wetland areas, often in association with black spruce or tamarack. These areas are not extensive, but are a distinctive feature of the East Beaver Lake Study Area (see Environmental Tables, Appendix B for further detail). Figure 7 shows an edatophic grid matrix for the Pine/Bearberry/Lichen forage type.

Site Characteristics

| | |
|-----------------|---|
| Moisture regime | : Xeric to subxeric |
| Nutrient regime | : Submesotrophic |
| Slope position | : Level |
| Slope gradient | : Very gentle, 0-4% |
| Aspect | : Variable |
| Elevation | : 500-600 metres |
| Occurrence | : Infrequent, generally on sandy ridges |

Landscape Characteristics

| | |
|---------------------|-------------------------------|
| Parent material | : Glaciofluvial |
| Soil texture | : Sand |
| Drainage | : Rapid |
| pH of rooting zone: | 4.0-5.0 |
| Rooting depth | : 50 cm |
| Soil association | : Eluviated Dystric Brunisols |

4.1.1.2 P3 - Pine/Alder/Blueberry (*Pinus banksiana*/*Alnus crispa*/*Vaccinium myrtilloides*)

Pine/Alder/Blueberry (P3) type is identified by the following characteristic species combinations and association characteristics:

| | | <div><div>TROPHOTOPE</div><div>OLIGOTROPHIC</div><div>SUBMESOTROPHIC</div><div>MESOTROPHIC</div><div>PERMESOTROPHIC</div><div>SUBEUTROPHIC to EUTROPHIC</div><div>HYPEREUTROPHIC</div></div> | | | | | |
|------------|---|--|---|---|---|---|---|
| HYGROTOPE | | A | B | C | D | E | F |
| VERY XERIC | 0 | | | | | | |
| XERIC | 1 | | | | | | |
| SUBXERIC | 2 | | | | | | |
| SUBMESIC | 3 | | | | | | |
| MESIC | 4 | | | | | | |
| SUB HYGRIC | 5 | | | | | | |
| HYGRIC | 6 | | | | | | |
| SUBHYDRIC | 7 | | | | | | |
| HYDRIC | 8 | | | | | | |

Figure 7 Edatopic Grid P2 - Pine/Bearberry/Lichen

Vegetation

Characteristic Combination of Species

| <u>Layer</u> | <u>Average Percent Cover</u> | |
|--------------|--|---|
| Trees | (50) | |
| | Jack pine Trembling aspen | Populus tremuloides |
| Shrubs | (28) | |
| | Green alder Beaked willow Labrador tea Saskatoon-berry Prickly rose Blueberry | Salix bebbiana Amelanchier alnifolia Rosa acicularis |
| Forbs | (55) | |
| | Bog cranberry Bunchberry Twinflower Strawberry Palmate-leaved coltsfoot Lindley's aster | Vaccinium vitis-idaea Linnaea borealis Petasites palmatus Aster ciliolatus |
| Grasses | (15) | |
| | Hairy wild rye Downy brome Northern reed grass | Elymus innovatus Bromus ciliolatus |
| Mosses | (3) | |
| | Schreber's moss | Pleurozium schreberi |
| Lichens | (1) | |
| | | Cladina mitis |
| Epiphytes | (low) | |
| | | Celiaria pinastri Parmelia sulcata Pylasiella polyantha |

Association Characteristics

| | |
|--------------------|------------------------------|
| Canopy height (m): | 14.7 |
| Canopy cover | : 50% |
| Age (y) | : 46 |
| DBH (cm) | : 13.8 |
| Stems/ha | : 500 |
| Species present | : jack pine, trembling aspen |

Vegetation Comment

Pine/Alder/Blueberry is characterized by a jack pine overstory with varying amounts of aspen present. The shrub layer is more pronounced than that of the Pine/Bearberry/Lichen (P2) forage type. Shrubs such as green alder, willow, Labrador tea, blueberry and prickly rose are common species. The herbaceous layer is more diverse than the previous vegetation type with the improved nutrient and moisture status of the soil. Grasses, most notably hairy wild rye and northern reed grass, are prominent in this forage type. The moss layer is sparse, with Schreber's moss being consistently present. Lichens are not as evident as in the Pine/Bearberry/Lichen (P2) forage type. Epiphytes are low in cover (Vegetation and Mensuration Tables, Appendix B).

This East Beaver Lake vegetation type bears a resemblance to the same association identified for the Special Lakeland area (Kocaoglu and Bennett, 1983). A comparative summary table and Special Lakeland biomass values appears on Table 7. Plates 3 and 4 illustrate a representative Pine/Alder/Blueberry (P3) forage type and typical vegetation.

Table 7

COMPARATIVE SUMMARY OF THE PINE/ALDER/BLEUBERRY (P3) TYPE

East Beaver Lake Forage Type

Special Lakeland Forage Type
(page 47)

Major Species

jack pine, blueberry, green alder,
bog cranberry, twinflower, hairy
wild rye

jack pine, green alder, blue-
berry, bog cranberry, bunch-
berry, twinflower, Schreber's
moss

Minor Species

aspen, Labrador tea, beaked willow,
white spruce, Saskatoon-berry,
prickly rose, bunchberry, wild straw-
berry, palmate-leaved coltsfoot,
Schreber's moss, northern reed grass

aspen, prickly rose, Labrador
tea, wild red raspberry, wild
lily-of-the-valley, common
bearberry, northern reed
grass, hairy wild rye,
knight's plume moss, stair-
step moss, hair cap moss

Age

46

38.5-60.6 years

Parent Materials

Glaciofluvial

Glaciofluvial, till overlain
by glaciofluvial deposits

Biomass

not collected

| | |
|---------|-----------|
| Forbs | 840 kg/ha |
| Grasses | 797 kg/ha |
| Browse | 4.6 kg/ha |



Plate 3. Representative association of the Pine/Alder/
Blueberry type (P3).



Plate 4. Typical vegetation of the Pine/Alder/Blueberry
Type (P3).

Site/Landscape Comments

The Pine/Alder/Blueberry forage type occurs on subxeric to submesic sites that are well to rapidly drained. Eluviated Dystric Brunisols and Eluviated Eutric Brunisols developed on glaciofluvial parent materials are the dominant soils in these areas. This type is found on somewhat moister sites than the Pine/Bearberry/Lichen (P2) type, as is reflected in the species composition. The Pine/Alder/Blueberry (P3) forage type (see Environmental Tables, Appendix B for further details), is not common in the study area, but it does occur sporadically throughout Geomorphic System II. Figure 8 shows an edatopic grid matrix for the Pine/Alder/Blueberry (P3) forage type.

Site Characteristics

| | | |
|-----------------|---|----------------------|
| Moisture regime | : | Subxeric to submesic |
| Nutrient regime | : | Submesotrophic |
| Slope position | : | Level |
| Slope gradient | : | 1-8% |
| Aspect | : | Variable |
| Elevation | : | 500-600 metres |
| Occurrence | : | Infrequent |

Landscape Characteristics

| | | |
|---------------------|---|--|
| Parent material | : | Glaciofluvial |
| Soil Texture | : | Sand to loamy sand |
| Drainage | : | Well to rapid |
| pH of rooting zone: | : | 4.5-5.5 |
| Rooting depth | : | 30 cm |
| Soil association | : | Eluviated Dystric Brunisols, Eluviated Eutric Brunisol |

| | | <div>TROPHOTOPE</div> <div>OLIGOTROPHIC</div> <div>SUBMESOTROPHIC</div> <div>MESOTROPHIC</div> <div>PERMESOTROPHIC</div> <div>SUBEUTROPHIC to EUTROPHIC</div> <div>HYPEREUTROPHIC</div> | | | | | |
|------------|---|---|---|---|---|---|---|
| HYGROTOPE | | A | B | C | D | E | F |
| VERY XERIC | 0 | | | | | | |
| XERIC | 1 | | | | | | |
| SUBXERIC | 2 | | | | | | |
| SUBMESIC | 3 | | | | | | |
| MESIC | 4 | | | | | | |
| SUB HYGRIC | 5 | | | | | | |
| HYGRIC | 6 | | | | | | |
| SUBHYDRIC | 7 | | | | | | |
| HYDRIC | 8 | | | | | | |

Figure 8 Edatopic Grid P3 - Pine/Alder/Blueberry

4.1.2 Aspen Forage Types

Trembling aspen occupies submesic to mesic sites in conjunction with well to moderately drained soils. Xeric and subhydryc sites support poor and usually sparse aspen growth.

Fire is a major factor governing the development of trembling aspen forage types. Aspen is not however a climax tree species; it is generally transitional to other species. Repeated light fires serve to stimulate aspen regrowth and may eventually exclude white spruce over large areas, even in the understory. This phenomenon appears to be present within the east-central portion of the study area.

The following aspen types have been identified for the East Beaver Lake study area: Aspen/Alder/Twinflower (A1a), Aspen/Willow/Sarsaparilla (A1b), Aspen-Poplar/Cranberry (A2) and Aspen/Cranberry/Sarsaparilla (A3).

In areas where burning has not been recent and/or the moisture conditions of the soil inhibit fire, the Aspen-Poplar/Cranberry (A2) forage type is dominant. This type approaches 100 years of age. Balsam poplar may attain 135 years in age while aspen usually does not exceed 120 years. The understory species composition reflects the open canopy of the Aspen-Poplar/Cranberry (A2) type. An increase in forb and grass cover is indicative of a decrease in overstory density.

The Aspen/Cranberry/Sarsaparilla (A3) type is younger in terms of successional status. The occurrence of repeated fires has stimulated the aspen regrowth. The dense canopy favors the growth of shrub and herb

species with a very low light requirement. The Aspen/Cranberry/Sarsaparilla (A3) forage type generally succeeds to the Aspen-Poplar/Cranberry (A2) type in the absence of fire. This is supported by a similarity in the major and minor species present in both types.

The Aspen/Alder/Twinflower (A1a) and Aspen/Willow/Sarsaparilla (A1b) complex type has white spruce present in the understory. This indicates that succession will probably be to a mixed white spruce-aspen stand before a climax spruce stand is attained. In contrast, the aspen-balsam poplar component will be very decadent before the white spruce establishes itself in the Aspen-Poplar/Cranberry (A2) type (Kocaoglu and Bennett, 1983).

The aspen forage types constitute the majority of the vegetation present within the East Beaver Lake study area. Geomorphic system I (veneered morainal upland) is represented by trembling aspen in various associations, as described in this section.

Generally, the western edge of the north-east portion of the study area is characterized by dense aspen stands.

4.1.2.1 A1a - Aspen/Alder/Twinflower (*Populus tremuloides*/*Alnus crispa*/*Linnaea borealis*)

Aspen/Alder/Twinflower (A1a) type is identified by the following characteristic species combinations and association characteristics.

Vegetation

Characteristic Combination of Species

| <u>Layer</u> | <u>Average Percent Cover</u> | |
|--------------|------------------------------|--------------------------------|
| Shrubs | (28) | |
| | Green alder | |
| | Red osier dogwood | Cornus stolonifera |
| | Prickly rose | |
| | Low-bush cranberry | Viburnum edule |
| Forbs | (35) | |
| | Wild sarsaparilla | Aralia nudicaulis |
| | Twinflower | |
| | Bunchberry | |
| | Dewberry | Rubus pubescens |
| Grasses | (2) | |
| | Hairy wild rye | |
| | Northern reed grass | |
| Mosses | (2) | |
| | | Brachythecium campestre |
| Epiphytes | (low) | |
| | | Pylasiella polyantha |
| | | Cetraria halei |
| | | Cetraria pinastri |
| | | Hypogymnia physoides |

Association Characteristics

Canopy height (m): 14.5
Canopy cover : 60%
Age (y) : 46
DBH (cm) : 10.8
Stems/ha : 3 000
Species present : trembling aspen, balsam poplar

Vegetation Comments

Trembling aspen is the dominant species in the dense overstory, with balsam poplar as a minor component. Green alder dominates the shrub layer, with lesser amounts of dogwood, prickly rose and low-bush cranberry. The forb layer is composed primarily of twinflower, with other forb species constituting the remainder. Grasses, lichens and mosses are very sparse in cover (Vegetation and Mensuration Tables, Appendix B).

This forage type bears a close resemblance to that discussed in the Special Lakeland report. Table 8 shows a comparative summary and Special Lakeland biomass figures between the two study areas.

Site/Landscape Comments

This Aspen/Alder/Twinflower forage subtype occurs predominantly on glaciofluvial veneer over morainal parent materials with well to moderately well drained Brunisolic Gray Luvisols. It is often located on mid to lower slopes being transitional to jack pine. The moisture regime is submesic to subhygric with the nutrient regime being submesotrophic to mesotrophic (see Environmental Tables, Appendix B for further detail). Figure 9 shows an edatopic grid matrix for the Aspen/Alder/Twinflower type.

Site Characteristics

| | | |
|-----------------|---|-------------------------------|
| Moisture regime | : | Submesic to subhygric |
| Nutrient regime | : | Submesotrophic to mesotrophic |
| Slope position | : | Mid to lower slope |
| Slope gradient | : | 0-15% |

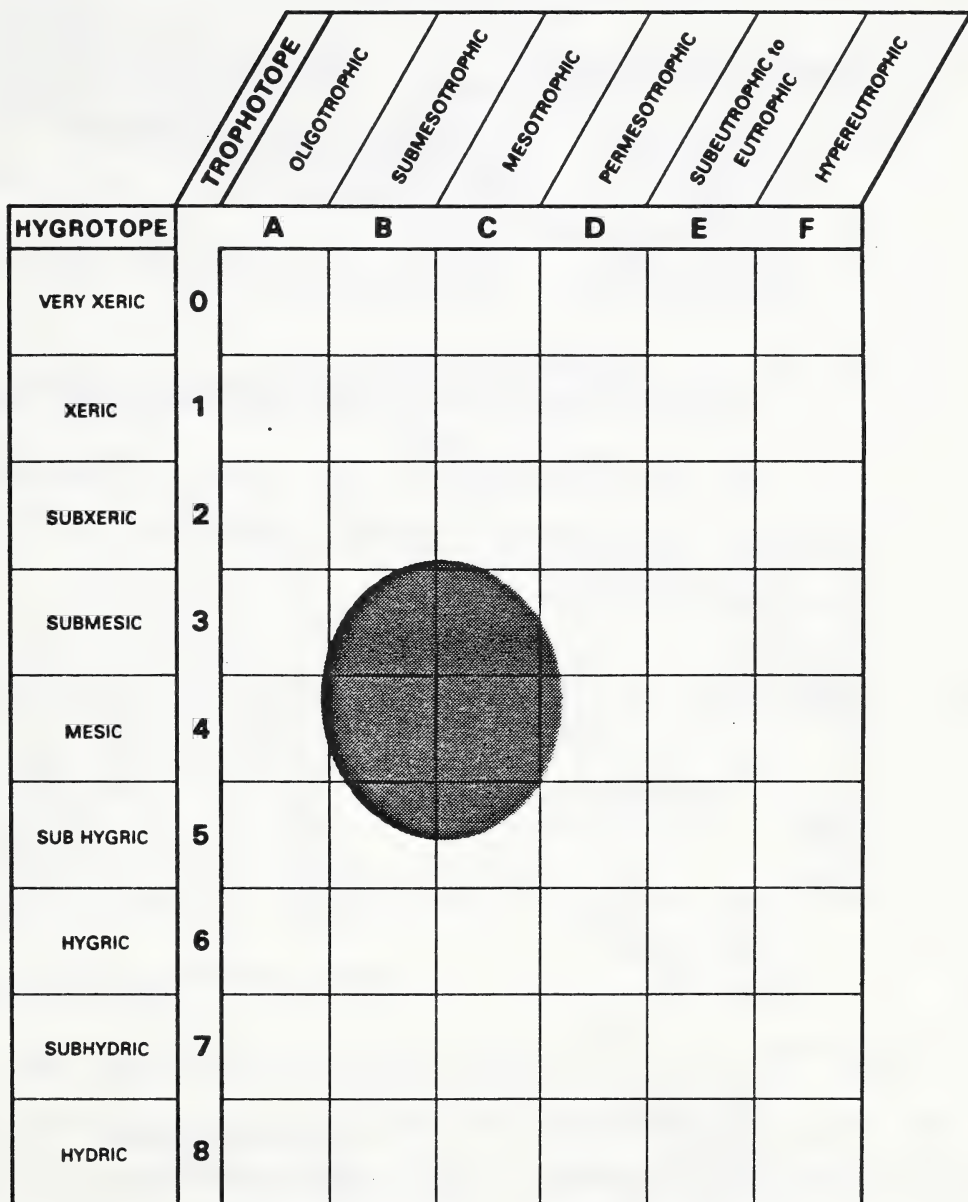


Figure 9 Edatopic Grid A1a - Aspen/Alder/Twinflower

Aspect : Variable
 Elevation : 500-600 metres
 Occurrence : Dominant

Landscape Characteristics

Parent material : Glaciofluvial overlying moraine
 Soil texture : Sand to loamy sand
 Drainage : Well to moderately well
 pH of rooting zone: 5.5-6.0
 Rooting depth : 42 cm
 Soil association : Brunisolic Gray Luvisols

4.1.2.2 Alb - Aspen/Willow/Sarsaparilla (Populus tremuloides/Salix bebbiana/Aralia nudicaulis)

Aspen/Willow/Sarsaparilla (Alb) type is identified by the following characteristic species combinations and association characteristics.

Vegetation

Characteristic Combination of Species

| <u>Layer</u> | <u>Average Percent Cover</u> | |
|--------------|------------------------------|--------------------------------|
| Trees | (67) | |
| | Trembling aspen | |
| | Balsam poplar | |
| | Paper birch | Betula papyrifera |
| Shrubs | (49) | |
| | Beaked willow | |
| | Saskatoon-berry | |
| | Snowberry | Symphoricarpos alba |
| | Beaked hazelnut | Corylus cornuta |
| | Prickly rose | |
| | Low-bush cranberry | |
| Forbs | (33) | |
| | Fireweed | Epilobium angustifolium |
| | Twinflower | |

| <u>Layer</u> | <u>Average Percent Cover</u> |
|--------------|------------------------------|
|--------------|------------------------------|

| | |
|--------------------------|-----------------------|
| Bunchberry | |
| Dewberry | |
| Lindley's aster | |
| Palmate-leaved coltsfoot | |
| Northern bedstraw | Galium boreale |
| Wild sarsaparilla | |

| | |
|---------|------|
| Grasses | (9) |
|---------|------|

| | |
|---------------------|--|
| Hairy wild rye | |
| Northern reed grass | |

| | |
|--------|------|
| Mosses | (1) |
|--------|------|

| | |
|---------|------|
| Lichens | (8) |
|---------|------|

| | |
|------------|-------------------------|
| Dog lichen | Peltigera canina |
|------------|-------------------------|

| | |
|-----------|-------|
| Epiphytes | (low) |
|-----------|-------|

| |
|-----------------------------|
| Pylasiella polyantha |
| Cetraria pinastri |

Association Characteristics

| | | |
|-------------------|---|---|
| Canopy height (m) | : | 13.9 |
| Canopy cover | : | 50% |
| Age (y) | : | 52 |
| DBH (cm) | : | 11.3 |
| Stems (ha) | : | 2 100 |
| Species present | : | trembling aspen, balsam poplar, paper birch |

Vegetation Comments

The Aspen/Willow/Sarsaparilla (Alb) type is characterized by a fairly dense overstory that includes minor amounts of balsam poplar, and occasionally paper birch. Beaked willow is the most prevalent species in the shrub layer. The most prominent species in the forb layer are fireweed and twinflower, with wild sarsaparilla present in considerable, but not always consistent, amounts. Hairy wild rye and northern reed

grass are the dominant grasses. Mosses and lichens are sparse in cover.

This type, along with the Aspen/Alder/Twinflower (A1a) forage type, is quite variable in the dominant species and is difficult to map. There is considerable similarity in the major and minor species between the two phases. The variation within this type occurs mainly in the mean cover percentages of the characteristic species.

These types bear a resemblance to those discussed in the Special Lakeland report (Kocaoglu and Bennett, 1983). A comparative summary table and Special Lakeland values between the two types appears on Table 8. Plates 5 and 6 illustrate Aspen/Willow/Sarsaparilla (A1b) forage type and typical vegetation.

Site/Landscape Comments

The Aspen/Willow/Sarsaparilla (A1b) type is found under similar site conditions to the Aspen/Alder/Twinflower (A1a) type. Moderately well drained Eluviated Dystric Brunisols and Orthic Gray Luvisols are the major soil types. The parent material is usually glaciofluvial over moraine (see Environmental Tables, Appendix B for further detail).

Figure 10 shows an edatopic grid matrix for the Aspen/Willow/Sarsaparilla (A1b) type.

Table 8

COMPARATIVE SUMMARY OF THE ASPEN/ALDER/TWINFLOWER (A1a) TYPE
AND ASPEN/WILLOW/SARSAPARILLA (A1b) TYPE

East Beaver Lake Forage Type

Special Lakeland Forage Type
(page 52)

Major Species

trembling aspen, green alder,
wild sarsaparilla, beaked willow,
beaked hazelnut, prickly rose

trembling aspen, green alder,
beaked willow, low-bush
cranberry, wild sarsaparilla,
twinflower

Minor Species

white spruce, balsam poplar,
low-bush cranberry, twinflower,
bunchberry, dewberry, palmate-
leaved coltsfoot, common pink
wintergreen, fireweed, Lindley's
aster, northern bedstraw, cream-
colored vetchling, wild strawberry,
wild lily-of-the-valley, one-
sided wintergreen, hairy wild
rye, tall lungwort, northern
reed grass

white spruce, balsam poplar,
bracted honeysuckle, twining
honeysuckle, prickly rose,
snowberry, dewberry, fire-
weed, common pink winter-
green, harebell, Lindley's
aster, wild strawberry,
star-flower, wild vetch,
cream-colored vetchling,
early blue violet, bunch-
berry, yarrow, palmate-
leaved coltsfoot, wild
lily-of-the-valley, hairy
wild rye

Age

45 years

50 years (matures 80-85)

Parent Materials

Glaciofluvial, morainal

Glaciofluvial, morainal

Biomass

not collected

Forbs 3 285 kg/ha
Grasses 908 kg/ha
Browse 4.1 kg/ha



Plate 5. Representative association of the Aspen/
Willow/Sarsaparilla type (Alb).



Plate 6. Typical vegetation of the Aspen/Willow/
Sarsaparilla type (Alb).

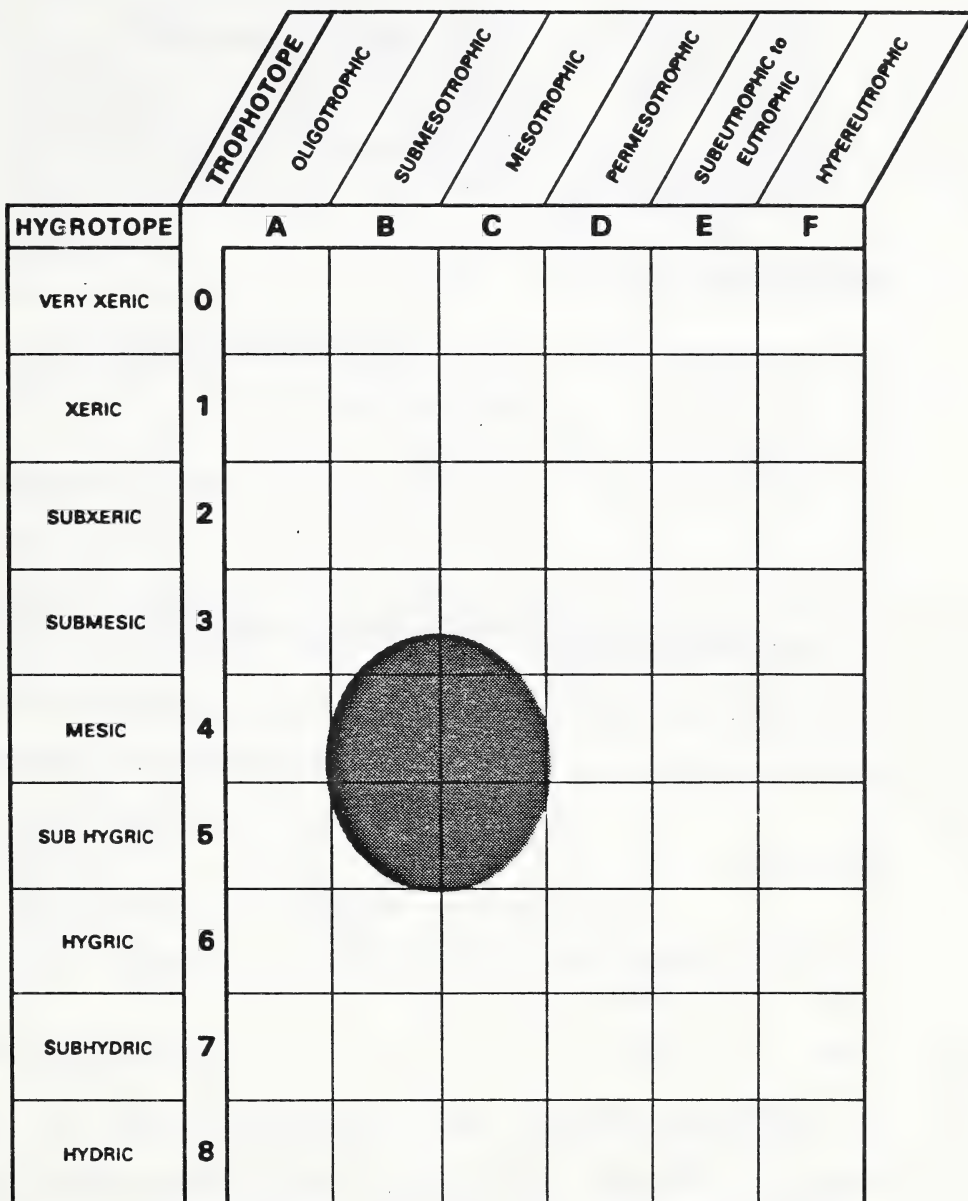


Figure 10 Edatopic Grid A1b - Aspen/Willow/Sarsaparilla

Site Characteristics

Moisture regime : Subxeric to mesic
Nutrient regime : Submesotrophic to mesotrophic
Slope position : Mid to lower slope
Slope gradient : 4-15%
Aspect : Variable
Elevation : 500-600 metres
Occurrence : Dominant

Landscape Characteristics

Parent material : Glaciofluvial overlying moraine
Soil texture : Loam to sand
Drainage : Moderately well
pH of rooting zone: 5.0-7.0
Rooting depth : 23-45 cm
Soil association : Eluviated Dystric Brunisol, Orthic Gray Luvisols

4.1.2.3 A2 - Aspen-Poplar/Cranberry (Populus tremuloides-Populus balsamifera/Viburnum edule)

The Aspen-Poplar/Cranberry (A2) type is identified by the following characteristic species combinations and association characteristics.

Vegetation

Characteristic Combination of Species

| <u>Layer</u> | <u>Average Percent Cover</u> |
|--------------|----------------------------------|
|--------------|----------------------------------|

| | |
|-------|------|
| Trees | (45) |
|-------|------|

| | |
|----------------------------------|--|
| Trembling aspen Balsam poplar | |
|----------------------------------|--|

| | |
|--------|------|
| Shrubs | (32) |
|--------|------|

| | |
|---|--|
| White spruce Prickly rose Low-bush cranberry Red-osier dogwood | |
|---|--|

Picea glauca

| <u>Layer</u> | <u>Average Percent Cover</u> | |
|--------------|------------------------------|------------------------------|
| Forbs | (39.5) | |
| | Fireweed | |
| | Hairy aster | |
| | Palmate-leaved coltsfoot | |
| | Wild strawberry | |
| | Wild lily-of-the-valley | Maianthemum canadense |
| | Common pink wintergreen | Pyrola asarifolia |
| | Wild vetch | Vicia americana |
| Grasses | (8.5) | |
| | Northern reed grass | |
| | Hairy wild rye | |
| Mosses | (1) | |
| | Schreber's moss | |
| Lichens | (0) | |
| Epiphytes | (medium) | |
| | | Pylasiella polyantha |
| | | Cetraria pinastri |

Association Characteristics

Canopy height (m): 26.3
 Canopy cover : 37%
 Age (y) : 70
 DBH (cm) : 22.5
 Stems/ha : 1 150
 Species present : trembling aspen, balsam poplar, paper birch

Vegetation Comments

This type is dominated by trembling aspen and balsam poplar. The shrub layer consists primarily of prickly rose, with minor amounts of Saskatoon-berry, white spruce, low-bush cranberry and red osier dogwood.

Forbs are present in consistent but minor amounts. The dominant grasses are northern reed grass and hairy wild rye. Mosses and lichens are very sparse (Vegetation and Environmental Tables, Appendix B).

The Aspen-Poplar/Cranberry (A2) type is the oldest of the aspen types. Rotten cores, deadfall and canopy openings indicate the stands are past maturity. The resulting decrease in canopy closure allows the growth of low and medium shrubs. White spruce regeneration is also encouraged as the canopy becomes more open. Providing there is no fire, white spruce succession appears to be certain for this type (Kocaoglu and Bennett, 1983).

This type bears a resemblance to that described in the Special Lakeland area (Kocaoglu and Bennett, 1983). A comparative summary table and Special Lakeland biomass values appear in Table 9. Plates 7 and 8 illustrate a representative Aspen-Poplar/Cranberry (A2) forage type and typical vegetation.

Site/Landscape Comments

The Aspen-Poplar/Cranberry (A2) forage type is not extensive throughout the study area. It occurs on submesic to mesic sites, primarily on Brunisolic Gray Luvisols. However, occurrences on Eluviated Eutric Brunisols and Orthic Gray Luvisols have been recorded in the Special Lakeland study area (Kocaoglu and Bennett, 1983). The parent material is glaciofluvial or morainal (see Environmental Tables, Appendix B for further detail). Figure 11 shows an edatopic grid matrix for the Aspen-Poplar/Cranberry (A2) type.

Table 9

COMPARATIVE SUMMARY OF THE ASPEN-POPLAR/CRANBERRY (A2) TYPE

East Beaver Lake Forage Type

Special Lakeland Forage Type

Major Species

trembling aspen, balsam poplar,
prickly rose

trembling aspen, balsam pop-
lar, low-bush cranberry,
prickly rose, twining
honeysuckle

Minor Species

wild sarsaparilla, fireweed,
Lindley's aster, palmate-leaved
coltsfoot, wild strawberry, wild
lily-of-the-valley, common pink
wintergreen, white spruce,
dogwood, northern reedgrass,
hairy wild rye

wild sarsaparilla, bunchberry,
fireweed, wild strawberry,
northern bedstraw, wild
lily-of-the-valley, palmate-
leaved coltsfoot, common
pink wintergreen, dewberry,
star-flower, western Canada
violet

Age

70 years

100 years

Parent Materials

Morainal

Morainal, glaciofluvial

Biomass

not collected

Forbs 3 610 kg/ha
Grasses 765 kg/ha
Browse 37.7 kg/ha



Plate 7. Representative association of the Aspen-Poplar/Cranberry type (A2).



Plate 8. Typical vegetation of the Aspen-Poplar/Cranberry type (A2).

| | | <div>TROPHOTOPE</div> <div>OLIGOTROPHIC</div> <div>SUBMESOTROPHIC</div> <div>MESOTROPHIC</div> <div>PERMESOTROPHIC</div> <div>SUBEUTROPHIC to EUTROPHIC</div> <div>HYPEREUTROPHIC</div> | | | | | |
|------------|---|---|---|---|---|---|---|
| HYGROTOPE | | A | B | C | D | E | F |
| VERY XERIC | 0 | | | | | | |
| XERIC | 1 | | | | | | |
| SUBXERIC | 2 | | | | | | |
| SUBMESIC | 3 | | | | | | |
| MESIC | 4 | | | | | | |
| SUB HYGRIC | 5 | | | | | | |
| HYGRIC | 6 | | | | | | |
| SUBHYDRIC | 7 | | | | | | |
| HYDRIC | 8 | | | | | | |

Figure 11 Edatopic Grid A2 - Aspen-Poplar/Cranberry

Site Characteristics

| | |
|-----------------|---------------------------------|
| Moisture regime | : Submesic to mesic |
| Nutrient regime | : Submesotrophic to mesotrophic |
| Slope position | : Variable |
| Slope gradient | : 0-31%, generally 1-5% |
| Aspect | : Variable |
| Elevation | : 500-600 metres |
| Occurrence | : Infrequent |

Landscape Characteristics

| | |
|---------------------|----------------------------|
| Parent material | : Glaciofluvial, morainal |
| Soil texture | : Loam to sandy loam |
| Drainage | : Well to moderately well |
| pH of rooting zone: | 4.5-6.5 |
| Rooting depth | : 16-28 cm |
| Soil association | : Brunisolic Gray Luvisols |

4.1.2.4 A3 - Aspen/Cranberry/Sarsaparilla (Populus tremuloides/Viburnum edule/Aralis nudicaulis)

The Aspen/Cranberry/Sarsaparilla type (A3) is identified by the following characteristic species combinations and association characteristics.

Vegetation

Characteristic Combination of Species

| <u>Layer</u> | <u>Average Percent Cover</u> |
|--------------|--|
| Trees | (75) |
| | Trembling aspen Balsam poplar |
| Shrubs | (30) |
| | Saskatoon-berry Beaked willow Prickly rose |

| <u>Layer</u> | <u>Average Percent Cover</u> | |
|--------------|------------------------------|---------------------------------|
| | Low-bush cranberry | |
| | Wild red raspberry | Rubus idaeus |
| | Beaked hazelnut | |
| Forbs | (35) | |
| | Wild sarsaparilla | |
| | Fireweed | |
| | Twinflower | |
| | Bunchberry | |
| | Palmate-leaved coltsfoot | |
| | Lindley's aster | |
| | Wild lily-of-the-valley | |
| | Cream-colored vetchling | Lathyrus ochroleucus |
| | Wild vetch | |
| | Northern bedstraw | |
| Mosses | (1) | |
| | | Plagiomnium cuspidatum |
| | | Brachythecium salebrosum |
| Lichens | (.2) | |
| | Dog lichen | |
| Epiphytes | (low) | |
| | | Pylasiella polyantha |
| | | Cetraria halei |
| | | Cetraria pinastri |

Association Characteristics

Canopy height (m): 17.8
 Canopy cover : 73%
 Age (y) : 25-30
 DBH (cm) : 20.0
 Stems/ha : -
 Species present : trembling aspen, balsam poplar

Vegetation Comments

The Aspen/Cranberry/Sarsaparilla forage type (A3) is characterized by a dense tree layer composed primarily of trembling aspen with minor

amounts of balsam poplar. Tall shrubs such as Saskatoon-berry and beaked willow are present. The low shrub layer is dominated by prickly rose and low-bush cranberry. The forb layer consists primarily of low forbs. The grasses are represented by northern reed grass which occurs in low amounts. Mosses, lichens and epiphytes are sparse (Vegetation Tables, Appendix B).

Succession to white spruce may be retarded due to the lack of a seed source. Frequent light fires in the past have perpetuated trembling aspen at the expense of white spruce (Kocaoglu and Bennett, 1983).

This East Beaver Lake type bears a close resemblance to the same association described for the Special Lakeland area (Kocaoglu and Bennett, 1983). A brief comparative summary and Special Lakeland biomass values appears on Table 10. Plates 9 and 10 illustrate a representative Aspen/Cranberry/Sarsaparilla (A3) forage type and typical vegetation.

Site/Landscape Comments

The Aspen/Cranberry/Sarsaparilla forage type occurs primarily on morainal materials and is usually situated on top of the well drained hummocks which typify geomorphic system I in the East Beaver Lake area. The soils are predominantly well to moderately well drained Brunisolic Gray Luvisols and Orthic Gray Luvisols. These sites have a submesotrophic to mesotrophic nutrient status (see Environmental Tables, Appendix B for further detail). Figure 12 shows an edatophic grid matrix for the Aspen/Cranberry/Sarsaparilla (A3) forage type.

Table 10

COMPARATIVE SUMMARY OF THE ASPEN/CRANBERRY/SARSAPARILLA (A3) TYPE

East Beaver Lake Forage Type

Special Lakeland Forage Type
(page 52)

Major Species

trembling aspen, low-bush
cranberry, wild sarsaparilla,
prickly rose

trembling aspen, wild sar-
saparilla, low-bush cranberry

Minor Species

beaked willow, Saskatoon-berry,
chokecherry, dewberry, bunchberry,
fireweed, twinflower, dogwood,
palmate-leaved coltsfoot, Lindley's
aster, tall lungwort, northern
bedstraw, cream-colored vetchling,
wild vetch, wild strawberry, wild
lily-of-the-valley, bishop's cap,
common pink wintergreen, kidney-
leaved violet, northern reed grass

snowberry, beaked hazelnut,
beaked willow, prickly rose,
Saskatoon-berry, wild red
raspberry, Lindley's aster,
bunchberry, cream-colored
vetchling, wild vetch,
fireweed, common pink
wintergreen, dewberry, tall
mertensia, wild strawberry,
wild lily-of-the-valley,
palmate-leaved coltsfoot,
hairy wild rye, northern
reedgrass

Age

25-30 years

50 years (matures 80-85
years)

Parent Materials

Morainal

Morainal

Biomass

not collected

Forbs 2 073 kg/ha
Grasses 560 kg/ha
Browse 20.3 kg/ha



Plate 9. Representative association of the Aspen/Cranberry/Sarsaparilla type (A3).

Plate 10. Typical vegetation of the Aspen/Cranberry/Sarsaparilla type (A3).



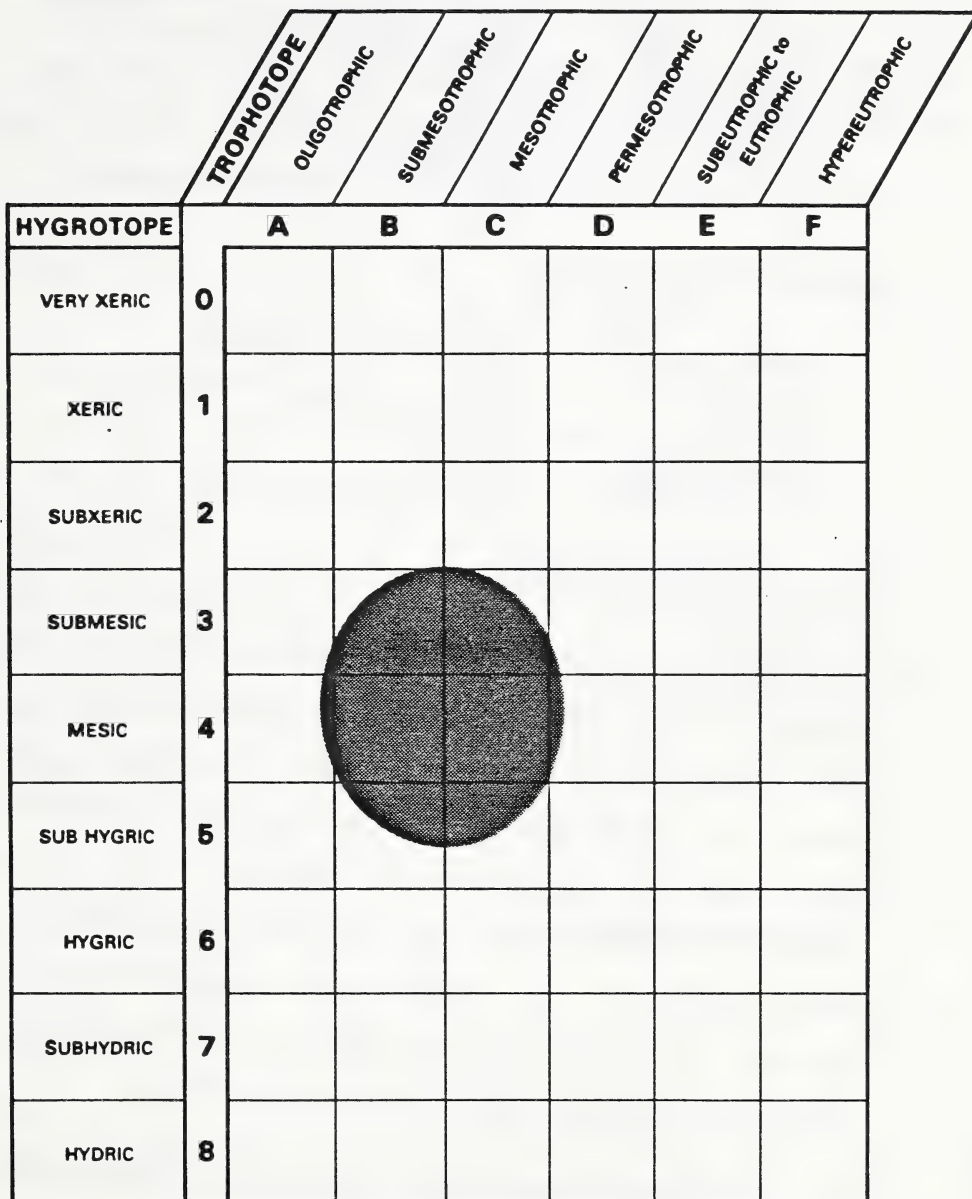


Figure 12 Edatopic Grid A3 - Aspen/Cranberry/Sarsaparilla

Site Characteristics

Moisture regime : Submesic to subhygric
Nutrient regime : Submesotrophic to mesotrophic
Slope position : Mid to upper
Slope gradient : 2-17%
Aspect : Variable
Elevation : 500-600 metres
Occurrence : Dominant, particularly in System I

Landscape Characteristics

Parent material : Morainal (glaciofluvial)
Soil texture : Loam
Drainage : Imperfect to well
ph of rooting zone: 5.5-6.5
Rooting depth : 17-23 cm
Soil association : Brunisolic Gray Luvisol, Orthic Gray Luvisol

4.1.3 White Spruce Forage Type

The White Spruce-Aspen/Cranberry/Sarsaparilla (Sw1) forage type is indicative of the sites that have not been burned within the last 75-120 years. This is a relatively small area of East Beaver Lake. The white spruce component has developed and is overtaking the trembling aspen and balsam poplar that is past maturity. Eventually, the White Spruce-Aspen/Cranberry/Sarsaparilla (Sw1) type will lose the trembling aspen component while retaining the low shrubs and tall forbs. If the canopy cover increases, the taller forbs and shrubs will be reduced and promote the lower forbs and mosses (Kocaoglu and Bennett, 1983).

This forage type was most dominant in the western portion of the study area. Small pockets of white spruce remain scattered throughout the area, depending on the fire history. Some of these stands have also been logged.

4.1.3.1 Sw1 - White Spruce- Aspen/Cranberry/Sarsaparilla
(Picea glauca-Populus tremuloides/Viburnum edule/Aralia nudicaulis)

The White Spruce-Aspen/Cranberry/Sarsaparilla (Sw1) type is identified by the following characteristic species combinations and association characteristics.

Vegetation

Characteristic Combination of Species

| <u>Layer</u> | <u>Average Percent Cover</u> | |
|--------------|------------------------------|-----------------------------|
| Trees | (55) | |
| | White spruce | |
| | Balsam poplar | |
| | Balsam fir* | Abies balsamea |
| | Trembling aspen | |
| Shrubs | (34) | |
| | Low-bush cranberry | |
| | Prickly rose | |
| | Snowberry | |
| | Beaked willow | |
| Forbs | (37) | |
| | Bunchberry | |
| | Tall lungwort | Mertensia paniculata |
| | Wild sarsaparilla | |
| | Northern bedstraw | |
| | Lindley's aster | |
| | Twinflower | |
| Grasses | (4) | |
| | Northern reed grass | |

* Balsam fir (**Abies balsamea**) was only present at one of the sites sampled and was not observed in any other portion of the study area.

| <u>Layer</u> | <u>Average Percent Cover</u> | |
|--------------|------------------------------|---------------------------------|
| Moss | (96) | |
| | Stair-step moss | <i>Hylocomnium splendens</i> |
| | Schreber's moss | <i>Brachythecium salebrosum</i> |
| Lichens | | |
| Epiphytes | (medium) | |
| | | <i>Parmelia sulcata</i> |
| | | <i>Cetraria halei</i> |
| | | <i>Cetraria pinastri</i> |
| | | <i>Pylasiella polyantha</i> |
| | | <i>Evernaria mesomorpha</i> |

Association Characteristics

Canopy height (m): 23
 Canopy cover : 60%
 Age (y) : 79
 DBH (cm) : 24 (19-29)
 Stems/ha : 875 (650-1 100)
 Species present : white spruce, trembling aspen

Vegetation Comments

The main canopy of the White Spruce-Aspen/Cranberry/Sarsaparilla type (Sw1) is dominated by white spruce with trembling aspen and balsam poplar as the codominant species. The stands are characterized by decadent or overmature hardwoods that are declining in productive growth. The shrub layer is prominent and well developed. Forbs indicative of lower light conditions constitute the bulk of the herbaceous layer. In areas where the canopy is open, fireweed is the predominant forb species. Grasses are not a major part of the herbaceous layer. Mosses are not prevalent but are a constant component of this forage type (Vegetation and Mensuration Tables, Appendix B).

Table 11

COMPARATIVE SUMMARY OF THE WHITE SPRUCE-ASPEN/
CRANBERRY/SARSAPARILLA (Sw1) TYPE

East Beaver Lake Forage Type

Special Lakeland Forage Type
(page 62)

Major Species

white spruce, trembling aspen,
low-bush cranberry, wild
sarsaparilla, bunchberrywhite spruce, trembling aspen,
balsam poplar, low-bush
cranberry, wild sarsaparilla

Minor Species

bracted honeysuckle, Saskatoon-
berry, tall lungwort, northern
bedstraw, Lindley's aster, wild
lily-of-the-valley, bishop's cap,
wild strawberry, dewberry, palmate-
leaved coltsfoot, one-sided
wintergreen, northern reedgrasssnowberry, prickly rose,
bracted honeysuckle, Lindley's
aster, bunchberry, northern
bedstraw, twinflower, wild
lily-of-the-valley, tall
mertensia, bishop's cap,
dewberry, palmate-leaved
coltsfoot, common horsetail,
fireweed, feathermosses

Age

80 years

32-99 years

Parent Materials

Glaciofluvial, moraine

Glaciofluvial, moraine

Biomass*

not collected

Forbs 3 213 kg/ha
Grasses 387 kg/ha
Browse 2.0 kg/ha



Plate 11. Representative association of the White Spruce-Aspen/Cranberry/Sarsaparilla type (Sw1).

This East Beaver Lake type bears a resemblance to the same type identified for the Special Lakeland area (Kocaoglu and Bennett, 1983). A comparative summary and Special Lakeland biomass values appears on Table 11. Plate 11 illustrates a representative White Spruce/Aspen/Cranberry/Sarsaparilla (Sw1) forage type and typical vegetation.

Site/Landscape Comments

This white spruce type generally occupies mesic to submesic sites and is found on the same soils and under similar site conditions as the aspen types. The parent materials are generally morainal and glaciofluvial in origin. Slope position and gradient do not appear to be a major factor influencing the establishment of this type. The presence of balsam fir regeneration in one site is indicative of moister and more acidic soil conditions. A seed source for fir was present as mature balsam fir were observed in the vicinity of the site (see Environmental Tables, Appendix B for further detail). Figure 13 shows an edatopic grid matrix for the White Spruce-Aspen/Cranberry/Sarsaparilla (Sw1) type.

Site Characteristics

| | |
|-----------------|---------------------------------|
| Moisture regime | : Submesic to subhygric |
| Nutrient regime | : Submesotrophic to mesotrophic |
| Slope position | : Variable |
| Slope gradient | : Variable (3-18%) |
| Aspect | : Variable |
| Elevation | : 500-600 metres |
| Occurrence | : Low |

Landscape Characteristics

| | |
|----------------------|---|
| Parent material | : Morainal, glaciofluvial blanket over moraine |
| Soil texture | : Loam to sandyloam |
| Drainage | : Well to moderately well |
| pH of rooting zone | : 4.0-6.0 |
| Rooting depth | : 27-30 cm |
| Soil classification: | Brunisolic Gray Luvisols, Eluviated Eutric Brunisols, Orthic Gray Luvisols |

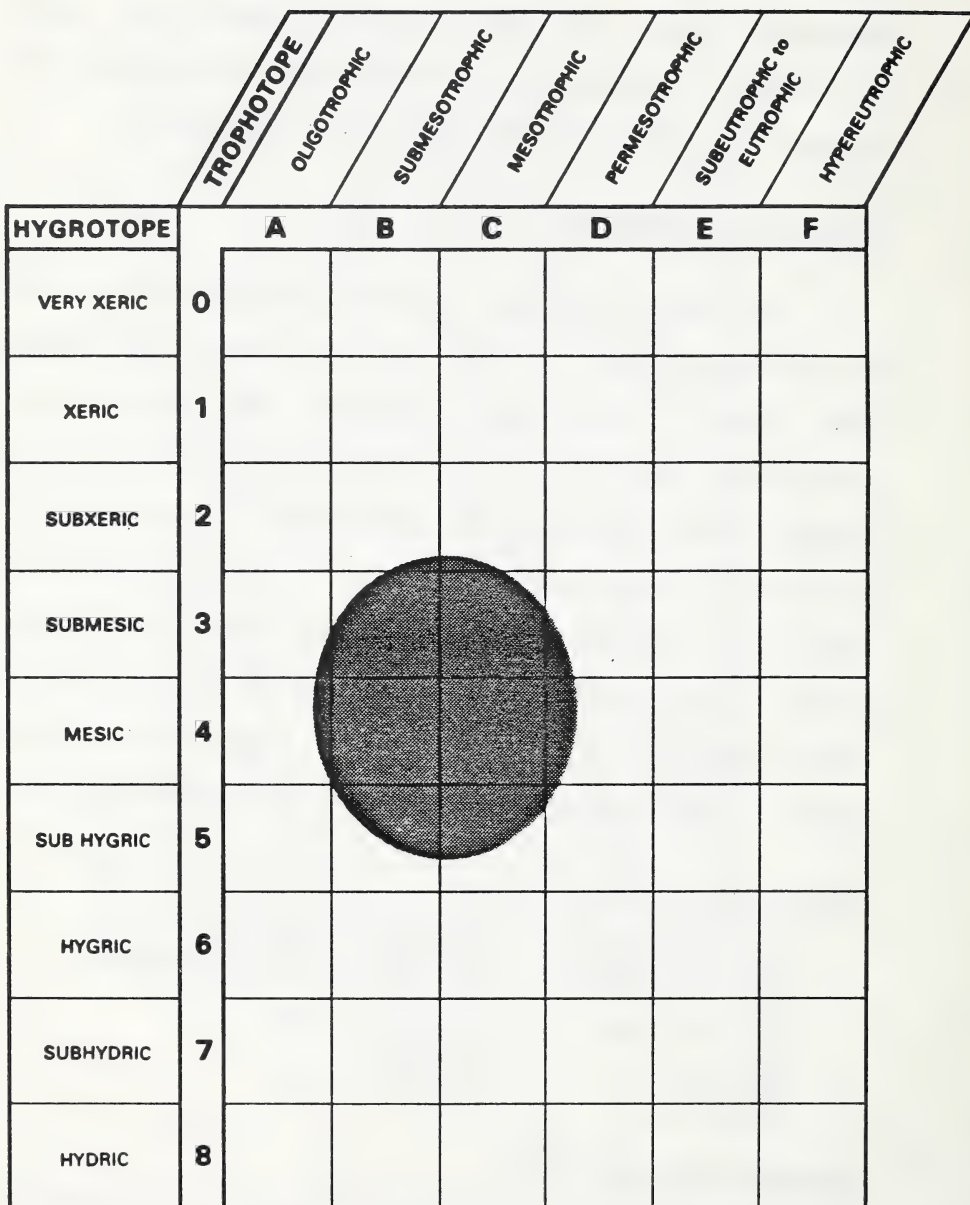


Figure 13 Edatopic Grid Sw1 - White Spruce-Aspen/Cranberry/Sarsaparilla

4.1.4 Black Spruce Forage Type

This Black Spruce/Labrador Tea/Moss (Sb1) type occurs predominantly on organic soils. The poor growth of black spruce in these areas can be attributed to the wet oligotrophic and acidic nature of these soils. Fire occurrence has been restricted due to the hygric nature of these areas. Black spruce is not well adapted to fire, and consequently the recovery of wetland types from burning is slow (Kocaoglu and Bennett, 1983).

This vegetation type is found primarily in the central portion of the study area, in association with the poor drainage conditions and organic soils encountered in geomorphic system II (glaciofluvial lowland).

4.1.4.1 Sb1 - Black Spruce/Labrador Tea/Moss (*Picea mariana*/*Ledum groenlandicum*/*Sphagnum* species)

The Black Spruce/Labrador Tea/Moss (Sb1) type is identified by the following characteristic species combinations and association characteristics.

Vegetation

Characteristic Combination of Species

| <u>Layer</u> | <u>Average Percent Cover</u> | |
|--------------|--|-----------------------------|
| Trees | (31) | |
| | Black spruce (predominant) Tamarack | <i>Picea mariana</i> |
| Shrubs | (46) | |
| | Labrador tea Willow (various) | <i>Salix</i> species |

| <u>Layer</u> | <u>Average Percent Cover</u> | |
|--------------|------------------------------|------------------------------|
| Forbs | (8) | |
| | Bog cranberry | |
| | Three-leaved Solomon's-seal | <i>Smilacina trifoliata</i> |
| | Small bog cranberry | <i>Oxycoccus microcarpus</i> |
| Grasses | (2.5) | |
| | Water sedge | <i>Carex aquatilis</i> |
| Mosses | (70) | |
| | Peat moss | <i>Sphagnum fuscum</i> |
| | Tufted moss | <i>Aulacomnium palustre</i> |
| | Golden moss | <i>Dicranum undulatum</i> |
| Lichens | (25) | |
| | Reinder lichen | |
| Epiphytes | (high) | |
| | Old man's beard | <i>Usnea soredifera</i> |
| | | <i>Cetraria pinastri</i> |

Association Characteristics

Canopy height (m): 11.2
 Canopy cover : 31%
 Age (y) : 72
 DBH (cm) : -
 Stems/ha : -
 Species present : black spruce

Vegetation Comment

The Black Spruce/Labrador Tea/Moss forage type (Sb1) is characterized by a short dense overstory composed predominantly of black spruce with minor amounts of tamarack. The typical "club-shaped" tops and small size, despite the age of the trees, is indicative of the wet conditions and poor nutrient status of these sites. The understory

consists mainly of Labrador tea. Forbs and grasses are not dominant, although small bog cranberry, bog cranberry and three-leaved Solomon's-seal are consistently present. The moss layer is very complex, composed of a series of hummocks in the microtopography. **Sphagnum** mosses occupy the tops of these mounds, while tufted moss (**Aulacomnium palustre**) inhabits the moister depressions. Lichen species are often observed to be growing on top of these hummocks where the microsite is very dry. A comparative summary of East Beaver Lake and Special Lakeland vegetation appears on Table 12.

Site/Landscape Comments

This type occupies hygric to subhygric sites and occurs primarily Terric Fibrisols and Fibric Mesisols. The poor growth of the black spruce can be attributed to a combination of the poor drainage and the acidic, oligotrophic conditions associated with the soils. These sites are classified as poor fen-wetlands. They are comprised of poorly to moderately decomposed *Sphagnum* derived peat with acidic, mineral poor organic layers (see Environmental Tables, Appendix B for further detail). Figure 14 shows an edatopic grid matrix for the Black Spruce/Labrador Tea/Moss forage type.

Site Characteristics

| | |
|-----------------|----------------------------------|
| Moisture regime | : Subhydryc to hygric |
| Nutrient regime | : Oligotrophic to submesotrophic |
| Slope position | : Depression |
| Slope gradient | : 1-5% |
| Aspect | : Variable |
| Elevation | : 500-600 metres |
| Occurrence | : Common |

Table 12

COMPARATIVE SUMMARY OF THE BLACK SPRUCE/LABRADOR TEA/MOSS (Sb1) TYPE

East Beaver Lake Forage Type

Special Lakeland Forage Type
(page 71)

Major Species

black spruce, labrador tea, peat
mossblack spruce, labrador tea,
peat moss, willow

Minor Species

tamarack, small bog cranberry,
three-leaved Solomon's seal,
bog cranberry, water sedge,
tufted mosstamarack, bog cranberry,
three-leaved Solomon's seal,
small bog cranberry, old
man's beard, tufted mos,
golden moss, cloudberry,
bishop's cap, creeping snow-
berry, stair-step moss,
reindeer lichen

Age

80

72

Parent Materials

organic over glaciofluvial

organic

Biomass

not collected

-

| | | <div>TROPHOTOPE</div> <div>OLIGOTROPHIC</div> <div>SUBMESOTROPHIC</div> <div>MESOTROPHIC</div> <div>PERMESOTROPHIC</div> <div>SUBEUTROPHIC to EUTROPHIC</div> <div>HYPEREUTROPHIC</div> | | | | | |
|------------|---|---|---|---|---|---|---|
| HYGROTOPE | | A | B | C | D | E | F |
| VERY XERIC | 0 | | | | | | |
| XERIC | 1 | | | | | | |
| SUBXERIC | 2 | | | | | | |
| SUBMESIC | 3 | | | | | | |
| MESIC | 4 | | | | | | |
| SUB HYGRIC | 5 | | | | | | |
| HYGRIC | 6 | | | | | | |
| SUBHYDRIC | 7 | | | | | | |
| HYDRIC | 8 | | | | | | |

Figure 14 Edatopic Grid SB1 - Black Spruce/Labrador Tea/Moss

Landscape Characteristics

Parent material : Organic
Soil texture : Fibric (mesic occasionally)
Drainage : poor
pH of rooting zone: 5.0-6.0
Rooting depth : -
Soil association : Terric Fibrisol, Fibric Mesisol

4.1.5 Tamarack Forage Types

Two tamarack forage types were identified: Black Spruce-Tamarack/Sedge/Moss (L1) and Tamarack/Birch/Sedge/Moss (L2).

The presence of tamarack in a wetland situation is indicative of an enriched nutrient status. The initial stage of wetland vegetation is a brush type, usually willow sedge. As the Willow/Sedge/Moss type (B2) gradually accumulates more peat, particularly sedge and brown moss peat, tamarack will begin to appear. Once established, the Tamarack/Birch/Sedge type (L2) bears the characteristics of a treed fen. As conditions become drier and the sphagnum mosses increase in density, black spruce invades and the Tamarack-Black Spruce/Sedge/Moss type (L1) predominates. As tamarack is not tolerant of acidic, oligotrophic conditions or shade, it will eventually be replaced by black spruce. A black spruce bog constitutes the wetland edaphic climax.

As tamarack cannot tolerate fire or shade, it is not self-perpetuating on sites where these factors influence stand establishment.

Tamarack types are predominant in geomorphic system II (glaciofluvial lowland) where poor drainage conditions and organic soils provide the required environmental conditions.

4.1.5.1 L1 - Tamarack-Black Spruce/Sedge/Moss
(*Larix laricina*-*Picea mariana*/*Carex* species/*Sphagnum* species)

The Tamarack-Black Spruce/Sedge/Moss (L1) type is identified by the following characteristic species combinations and association characteristics:

Vegetation

Characteristic Combination of Species

| <u>Layer</u> | <u>Average Percent Cover</u> | |
|--------------|------------------------------|---|
| Trees | (45) | |
| | | Tamarack Black spruce |
| Shrubs | (43) | |
| | | Labrador tea Dwarf birch |
| | | <i>Betula glandulosa</i> |
| Forbs | (10) | |
| | | Small bog cranberry Three-leaved Solomon's-seal Marsh marigold Bedstraw Bishop's cap Long-leaved stichwort |
| | | <i>Caltha palustris</i> <i>Galium labradoricum</i> <i>Mitella nuda</i> <i>Stellaria longifolia</i> |
| Grasses | (15) | |
| | | Water sedge Northern reed grass |
| Mosses | (88) | |
| | | Peat moss |
| Lichens | (.7) | |
| | | <i>Peltigera horizontalis</i> |
| Epiphytes | (high) | |
| | | <i>Cetraria pinastri</i> |
| | | Old man's beard |

Association Characteristics

Canopy height (m): 11.0
Canopy cover : 41%
DBH (cm) : 13.3
Stems/ha : 400
Species present : tamarack, black spruce

Vegetation Comments

The Tamarack-Black Spruce/Labrador Tea/Moss type is characterized by a tamarack dominated overstory with lesser amounts of black spruce. Labrador tea and regenerating black spruce are present in the shrub layer. The forbs are low in percent cover, and are composed primarily of small bog cranberry and three-leaved Solomon's-seal. The grass layer is prominent and consists largely of water sedge. Peat mosses, such as *Sphagnum fuscum*, constitute the majority of the moss species present. Moss found in the depressions between the hummocks is predominantly tufted moss (*Aulacomnium palustre*). Epiphyte cover is high with old man's beard (*Usnea sorediifera*) being the most common (Vegetation Tables, Appendix B).

This East Beaver Lake type bears a resemblance to that found in the Special Lakeland area (Kocaoglu and Bennett, 1983). A comparative summary appears on Table 13. Plates 12 and 13 illustrate a representative Tamarack-Black Spruce/Labrador Tea (L1) forage type and typical vegetation.

Table 13

COMPARATIVE SUMMARY OF THE TAMARACK-BLACK SPRUCE/SEDGE/MOSS (L1) TYPE

| East Beaver Lake Forage Type | Special Lakeland Forage Type (page 74) |
|--|--|
| Major Species | |
| tamarack, black spruce, labrador tea, water sedge, peat moss | tamarack, black spruce, sedge (water sedge), sphagnum moss, Tomenthypnum nitens |
| Minor Species | |
| small bog cranberry, three- leaved Solomon's-seal, tufted moss | Labrador tea, marsh marigold, chickweed, Solomon's-seal, marsh reed grass |
| Age | |
| 62 | 47 |
| Parent Materials | |
| organic over glaciofluvial | gleysolic, organic over glaciofluvial |
| Biomass | |
| not collected | not collected |

Plate 12. Representative
association of the
Tamarack-Black Spruce/
Sedge/Moss type (L1)



Plate 13. Typical Vegetation of the Tamarack-Black
Spruce/Sedge/Moss type (L1)

Site/Landscape Comments

Tamarack prefers sites that are more eutrophic than those of black spruce, so these types are considered to be transitional from black spruce to tamarack. The organic soils at these sites are very poorly drained Terric Mesic Fibrisols. Fibric Mesisols were reported in the Special Lakeland area (Kocaoglu and Bennett, 1983). The moisture regime is subhydryc to hydric. These sites are classified as intermediate fens because of their oligotrophic to permesotrophic nutrient status with a pH of between 5.5 and 7.0 (see Environment Tables, Appendix B for further details).

Figure 15 shows an edatopic gric matrix for the Tamarack-Black Spruce/Sedge/Moss type (L1).

Site Characteristics

| | | |
|-----------------|---|--------------------------------|
| Moisture regime | : | Subhydryc to hydric |
| Nutrient regime | : | Oligotrophic to submesotrophic |
| Slope position | : | Depression |
| Slope gradient | : | 0-5% |
| Aspect | : | Variable |
| Elevation | : | 500-600 metres |
| Occurrence | : | Frequent |

Landscape Characteristics

| | | |
|---------------------|---|----------------------------|
| Parent material | : | Organic over glaciofluvial |
| Soil texture | : | Fibric, mesic |
| Drainage | : | Very poor |
| pH of rooting zone: | : | 5.5-7.0 |
| Rooting depth | : | - |
| Soil association | : | Terric Mesic Fibrisols |

| | | <div>TROPHOTOPE</div> <div>OLIGOTROPHIC</div> <div>SUBMESOTROPHIC</div> <div>MESOTROPHIC</div> <div>PERMESOTROPHIC</div> <div>SUBEUTROPHIC to EUTROPHIC</div> <div>HYPEREUTROPHIC</div> | | | | | |
|------------|---|---|---|---|---|---|---|
| HYGROTOPE | | A | B | C | D | E | F |
| VERY XERIC | 0 | | | | | | |
| XERIC | 1 | | | | | | |
| SUBXERIC | 2 | | | | | | |
| SUBMESIC | 3 | | | | | | |
| MESIC | 4 | | | | | | |
| SUB HYGRIC | 5 | | | | | | |
| HYGRIC | 6 | | | | | | |
| SUBHYDRIC | 7 | | | | | | |
| HYDRIC | 8 | | | | | | |

Figure 15 Edatopic Grid L1 - Tamarack-Black Spruce/Sedge/Moss

4.1.5.2 L2 - Tamarack/Birch/Sedge/Moss
(Larix laricina/Betula pumila/Carex spp./Moss)

The Tamarack/Birch/Sedge/Moss (L2) type is identified by the following characteristic species combinations and association characteristics:

Vegetation

Characteristic Combination of Species

| <u>Layer</u> | <u>Average Percent Cover</u> | |
|--------------|------------------------------|---|
| Trees | (20) | |
| | | Tamarack Black spruce |
| Shrubs | (45) | |
| | | Swamp birch Betula pumila Dwarf birch Hoary willow Salix candida |
| Forbs | (15) | |
| | | Marsh marigold Three-leaved Solomon's-seal Buckbean Menyanthes tripliata |
| Grasses | (19) | |
| | | Water sedge Prairie sedge Carex prariea |
| Mosses | (83) | |
| | | Tufted moss Golden moss Dog lichen |
| Lichens | (.6) | |
| Epiphytes | (low) | |
| | | Cetraria halei Cetraria pinastri |

Association Characteristics

Canopy height (m): 11.7
Canopy cover : 20%
Age (y) : 70
DBH (cm) : -
Stems/ha : -
Species present : tamarack, black spruce

Vegetation Comments

The Tamarack/Birch/Sedge/Moss forage type (L2) is characterized by an overstory dominated by tamarack and very small amounts of black spruce. The shrub layer is composed mainly of swamp birch with minor amounts of dwarf birch and hoary willow. The forb layer does not consist of any single plant species but three-flowered Solomon's-seal, marsh marigold and buckbean are constantly present. Sedges, dominantly water sedge are common. Mosses make up the majority of the ground cover species with golden moss (*Tomenthypnum nitens*) and tufted moss (*Aulacomnium palustre*) occurring most frequently. Epiphytes are not present in high amounts (Vegetation and Environmental Tables, Appendix B).

This East Beaver lake type bears a resemblance to that described in the Special Lakeland Report (Kocaoglu and Bennett, 1983). A comparative summary Special Lakeland biomass values appears in Table 14. Plates 14 and 15 illustrate a representative Tamarack/Birch/Sedge/Moss (L2) forage type and typical vegetation.

Table 14

COMPARATIVE SUMMARY OF THE TAMARACK/BIRCH/SEDGE/MOSS (L2) TYPE

| East Beaver Lake Forage Type | Special Lakeland Forage Type |
|---|--|
| Major Species | |
| tamarack, swamp birch, tufted moss, water sedge | tamarack, swamp birch, sedge, Tomenthypnum nitens , Aulacomnium palustre |
| Minor Species | |
| marsh marigold, three-leaved Solomon's-seal, willow | black spruce, willow, dwarf birch, swamp birch, horse-tail, marsh marigold, three leaved Solomon's-seal, peat moss |
| Age | |
| 142 | 150 |
| Parent Materials | |
| Organic veneer/blanket, glaciofluvial | Organic |
| Biomass | |
| not collected | Forbs 1 450 kg/ha Grasses 2 320 kg/ha Shrubs 14.6 kg/ha |



Plate 14. Representative association of the Tamarack/
Birch/Sedge/Moss type (L2).



Plate 15. Typical vegetation of the Tamarack/Birch/
Sedge/Moss type (L2).

Site/Landscape Comments

The Tamarack/Birch/Sedge/Moss forage type is found on very poorly drained Terric Fibrisols over glaciofluvial parent materials. Humic Mesisols were reported in the Special Lakeland area (Kocaoglu and Bennett, 1983). The moisture regime is subhydryc to hydric. These sites can be classified as rich fens, with more eutrophic conditions and pH values between 7.0 and 8.0 (see Environmental Tables, Appendix B for further details).

Figure 16 shows an edatopic grid matrix for the Tamarck/Birch/Sedge/Moss type (L2).

Site Characteristics

| | | |
|-----------------|---|--------------------------------|
| Moisture regime | : | Hydric to subhydryc |
| Nutrient regime | : | permesotrophic to subeutrophic |
| Slope position | : | Level |
| Slope gradient | : | 0-2% |
| Aspect | : | Variable |
| Elevation | : | 500-600 |
| Occurrence | : | Frequent |

Landscape Characteristics

| | | |
|---------------------|---|----------------------------------|
| Parent material | : | Organic |
| Soil texture | : | Fibric to mesic |
| Drainage | : | Very poor |
| pH of rooting zone: | : | 7.0-8.0 |
| Rooting depth | : | |
| Soil association | : | Terric Fibrisols, Humic Mesisols |

| | | <div>TROPHOTOPE</div> <div>OLIGOTROPHIC</div> <div>SUBMESOTROPHIC</div> <div>MESOTROPHIC</div> <div>PERMESOTROPHIC</div> <div>SUBEUTROPHIC to EUTROPHIC</div> <div>HYPEREUTROPHIC</div> | | | | | |
|------------|---|---|---|---|---|---|---|
| HYGROTOPE | | A | B | C | D | E | F |
| VERY XERIC | 0 | | | | | | |
| XERIC | 1 | | | | | | |
| SUBXERIC | 2 | | | | | | |
| SUBMESIC | 3 | | | | | | |
| MESIC | 4 | | | | | | |
| SUB HYGRIC | 5 | | | | | | |
| HYGRIC | 6 | | | | | | |
| SUBHYDRIC | 7 | | | | | | |
| HYDRIC | 8 | | | | | | |

Figure 16 Edatopic Grid L2 - Tamarack/Birch/Sedge/Moss

4.1.6 Willow (Brush) Forage Type

Sedges are usually the first species to become established in water-filled depressions. Willow, and eventually mosses, become a major component of the ground cover. These moss mats play an important role in the development and accumulation of peat. These sites are generally nutrient-rich and hydric. The Willow/Sedge (B2) type is common along creeks, in sloughs, and fringing the many small water bodies found in geomorphic system II.

Succession may be to black spruce, although the disturbance created by water flowing through these areas and depositing silt may retard the formation of mosses and initial accumulation of peat.

4.1.6.1 B2* - Willow/Sedge (Salix species/Carex species)

The Willow/Sedge (B2) type is identified by the following characteristic species combinations and association characteristics:

Vegetation

Characteristic Combination of Species

| <u>Layer</u> | <u>Average Percent Cover</u> | |
|--------------|------------------------------|----------------------------|
| Shrubs | (31) | |
| | | Velvet-fruited willow |
| | | Flat-leaved willow |
| | | Athabasca willow |
| | | Autumn willow |
| | | Salix maccalliana |
| | | Salix planifolia |
| | | Salix athabascensis |
| | | Salix serripima |

* In order to effectively compare the East Beaver Lake forage types to those found in the Special Lakeland study area, the same association names and numbers were assigned to both study areas.

| <u>Layer</u> | <u>Average Percent Cover</u> | |
|--------------|------------------------------|---------------------------------|
| Forbs | (10) | |
| | Marsh marigold | |
| Grasses | (75) | |
| | Water sedge | |
| | Northern reed grass | |
| Mosses | (15) | |
| | Tufted moss | |
| | Brown moss | Drepanocladus polycarpus |
| Lichens | (.3) | |
| | Dog lichen | |

Association Characteristics

Canopy height (m): 2
 Age (y) :
 DBH (cm) :
 Stems/ha :
 Species present : willow (alder, swamp birch)

Vegetation Comments

The Willow/Sedge forage type (B2) is generally devoid of a tree layer. The upper layers are composed of tall and medium willows such as velvet-fruited willow, flat-leaved willow, Athabasca willow and autumn willow. The only consistent forb species is marsh marigold although some small amounts of other forbs are present. Sedges are dominant in the grass layer with water sedge being the most common. Mosses are generally lower in cover and lichens are practically non-existent. The continuous flooding of these areas restricts community development to those species which are tolerant of wet conditions.

This East Beaver Lake type bears a resemblance to that described in the Special Lakeland report (Kocaoglu and Bennett, 1983). A comparative summary and Special Lakeland biomass values appears in Table 15. Plates 16 and 17 illustrate a representative Willow/Sedge (B2) type and typical vegetation.

Site/Landscape Comments

The Willow/Sedge type (B2) is found on poor to very poorly drained Terric Mesisols and Terric Fibrisols over glaciofluvial parent materials. Typic Humisols and Mesic Humisols were reported in the Special Lakeland area (Kocaoglu and Bennett, 1983). The moisture regime is hydric to subhydric with the nutrient status being subeutrophic to eutrophic. These sites are common where prolonged flooding occurs, for example, as a result of beaver activity. See Environmental Tables, Appendix B for further details.

Figure 17 shows an edatophic grid matrix for the Willow/Sedge type (B2).

Site Characteristics

| | | |
|-----------------|---|---------------------------|
| Moisture regime | : | Subhydric to hydric |
| Nutrient regime | : | Subeutrophic to eutrophic |
| Slope position | : | Level |
| Slope gradient | : | 0-1% |
| Aspect | : | Variable |
| Elevation | : | 500-600 metres |
| Occurrence | : | Frequent |

Landscape Characteristics

| | | |
|--------------------|---|-----------------------------------|
| Parent material | : | Organic |
| Soil texture | : | Humic, mesic |
| Drainage | : | Poor to very poor |
| pH of rooting zone | : | 5.5-7.0 |
| Rooting depth | : | |
| Soil association | : | Terric Mesisols, Terric Fibrisols |

Table 15
COMPARATIVE SUMMARY OF THE WILLOW/SEDGE (B2) TYPE

| East Beaver Lake Forage Type | Special Lakeland Forage Type |
|---|---|
| Major Species | |
| velvet-fruited willow, flat-leaved willow, athabasca willow, autumn willow, tufted moss, water sedge, marsh marigold, green alder | flat-leaved willow, glaucous bog willow, hoary willow, tufted moss, water sedge, marsh marigold |
| Minor Species | |
| dwarf birch, wild gooseberry, northern reedgrass | dwarf birch, march cinquefoil, smartweed, Salix planifolia , wild gooseberry |
| Age | |
| Parent Materials | |
| organic veneer over glaciofluvial | organic veneer |
| Biomass | |
| not collected | Forbs 460 kg/ha Grasses 1 749 kg/ha Browse 128.9 kg/ha |



Plate 16. Representative association of the Willow/Sedge type (B2).



Plate 17. Typical vegetation of the Willow/Sedge type (B2).

| | | TROPHOTOPE | OLIGOTROPHIC | SUBMESOTROPHIC | MESOTROPHIC | PERMESOTROPHIC | SUBEUTROPHIC to EUTROPHIC | HYPEREUTROPHIC |
|------------|---|------------|--------------|----------------|-------------|----------------|---------------------------|----------------|
| HYGROTOPE | | A | B | C | D | E | F | |
| VERY XERIC | 0 | | | | | | | |
| XERIC | 1 | | | | | | | |
| SUBXERIC | 2 | | | | | | | |
| SUBMESIC | 3 | | | | | | | |
| MESIC | 4 | | | | | | | |
| SUB HYGIC | 5 | | | | | | | |
| HYGIC | 6 | | | | | | | |
| SUBHYDRIC | 7 | | | | | | | |
| HYDRIC | 8 | | | | | | | |

Figure 17 Edatopic Grid B2 - Willow/Sedge

5. SHORELINE AND POND CLASSIFICATION

Ten small bodies in the East Beaver Lake study area were surveyed and photographed on a low altitude helicopter reconnaissance flight on September 27, 1984, in order to determine their potential to support waterfowl and fish populations. Further observations of Roseland Lake were made from a boat on September 27 and 28, 1984.

The ponds which were surveyed are part of Geomorphic System II (glaciofluvial lowlands). The vegetation surrounding the emergent pond, cattails and bulrushes, is generally characterized by the Willow/Sedge forage type (B2) which occurs in conjunction with organic soil. The Tamarack forage types, Tamarack/Birch/Sedge/Moss (L2) and the Tamarack-Black Spruce/Sedge/Moss type (L1) are often found growing around the outer edges of the ponds, where the organic soils are present. Occasionally, well to moderately well drained Brunisolic Gray Luvisols, surround the pond shoreline. In these cases, the upland aspen type Aspen-Poplar/Cranberry (A2) would be common. The moist conditions near the shoreline would provide protection from frequent fires, and allow the vegetation to mature. In areas where the fires had occurred, the Aspen/Cranberry/Sarsaparilla type (A3) would be expected. This type is younger in terms of successional status. Both forage types, Aspen-Poplar/Cranberry type (A2) and Aspen/Cranberry/Sarsaparilla type (A3) are characteristic of mesic sites.

The forage type map, which accompanies this report, denotes pond and shoreline communities with the map symbol "S". A schematic diagram of the pond communities in relation to forage associations established

within the East Beaver Lake study area is illustrated in Figure 20 (Section 6.0 - Resource Inventory Integration).

The following ponds were surveyed: Roseland Lake, Matthews Lake, Trap Lake, BL1, BL2, BL3, BL4 and BL5. The location of each waterway is found on Figure 18.

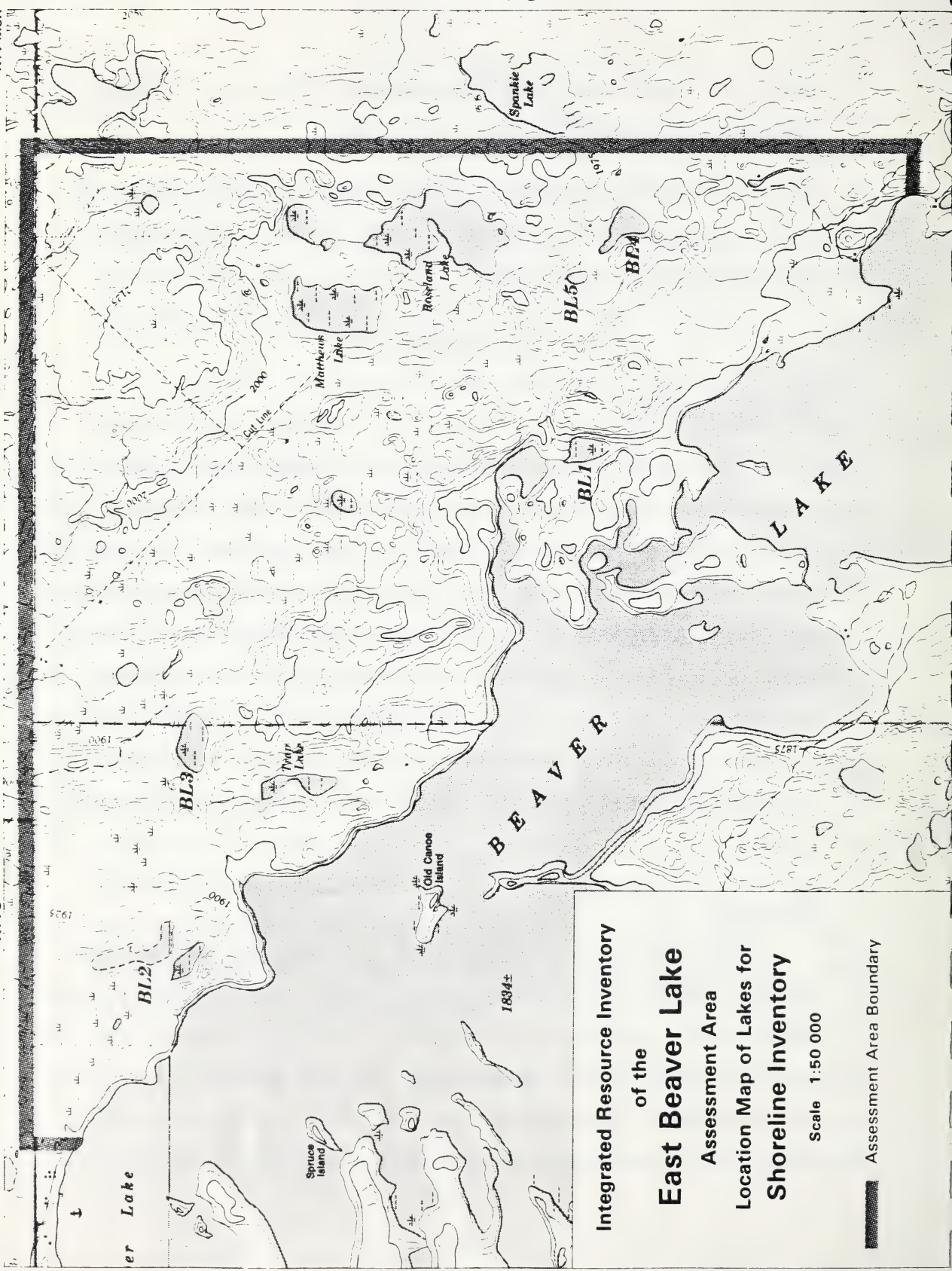
5.1 Roseland Lake

Vegetation Comments

This was the largest and deepest pond of the group surveyed, with a maximum depth of 2.75-3 m. Submerged macrophytes grow throughout, with spotty cover near the centre of the pond. The shoreline vegetation is poorly developed due to steep slopes. There is a narrow zone of emergent bulrushes and cattails (10-15 m) backed by a 5-10 m zone of willows around the southern and eastern shores of the lake on the northern and northwestern shores. The emergent/sedge zones have a combined width of 30-50 m, and the willow zone is 5-10 m wide (Plate 19). This zone lies between the emergent vegetation and the brush Willow/Sedge (B2) forage type.

Evaluation

This pond serves as a staging area for waterfowl migration. Variable numbers of waterfowl (50-300) were observed. Most of the shoreline has a relatively low potential as a waterfowl breeding area due to the lack of a well developed sedge zone and the low food value of submerged plants (Plate 18).



Integrated Resource Inventory

of the

East Beaver Lake

Assessment Area

Location Map of Lakes for

Shoreline Inventory

Scale 1:50 000

Assessment Area Boundary

The highest potential exists along the northern shore. The lake is large and relatively well mixed and is probably deep enough to support fish on a put and take basis.

Moderately well drained soils on shore and the lack of a zone of organic soils gives good access to the water along the southeastern shore. A trail provides access to this part of the lake. Table 16 shows a summary of Roseland Lake.

Table 16
ROSELAND LAKE SUMMARY TABLE

| Name | Depth (m) | Dominant Species | Shoreline Vegetation | Wildlife Use | Waterfowl Breeding Area Potential | Fish Habitat Potential |
|---------------|-----------|--|---|--|-----------------------------------|-----------------------------|
| Roseland Lake | 2.75-3.0 | Milfoil (<u>Myrophyllum exalbesens</u>) Coontail (<u>Ceratodophyllum demersum</u>) Clasping-leaved pondweed (<u>Potamogeton richardsonii</u>) Ribbon-leaved pondweed (<u>P. zosteriformis</u>) White-stemmed pondweed (<u>P. praelongus</u>) | Bulrushes (15 m) (<u>Scirpus</u> spp.) Cattails (<u>Typha</u> spp.) Willow (5-10 m) (<u>Salix</u> sp.) Sedges (<u>Carex</u> sp.) | Scaups, mallard, pintail, teals, coots | Low | Good for put and take basis |

5.2 Matthews Lake

Vegetation Comments

The floating and submerged species present in this lake indicate its depth is no greater than 2 m. There are well developed zones of emergent bulrushes and cattails, sedges and the brush type. The Willow/



Plate 18. The western shore of Roseland Lake showing a discontinuous zone of emergent and a narrow zone of sedges.



Plate 19. The northern shore of Roseland Lake, with the broadest emergent and sedge zones found adjacent to the peat-filled channel in the upper left of the photo.

Sedge (B2) forage type is found around most of the pond (Plate 20). The sedge zone is developed on organic soils which form a floating mat in the northeastern part of the lake. This zone is 10 to 50 m wide (Plate 21). The willow zone is 5 to 30 m wide. The death of willows closest to the lake indicates prolonged flooding in this zone.

The Black Spruce-Tamarack/Sedge/Moss type (L1) was observed on the perimeter of the organic soil zone. The aspen forage types Aspen/Alder/Twinflower (A1a) and the Aspen/Cranberry/Sarsaparilla type (A3) constitute the upland forest surrounding this waterbody.

Evaluation

Several dozen scaup and a few gulls were observed on this pond, but dabblers were not seen. The pond has moderate potential as a waterfowl breeding habitat because of the extensive sedge zone and the presence of open water areas within the emergent zone.

Shallow depth along with low oxygen levels as a result of plant respiration and decomposition would probably preclude fish planting.

The access to the water's edge is poor because of the presence of organic soils and a floating bog mat around much of the pond.

Table 17 shows a summary of Mathews Lake. The location of Matthews Lake is found on Figure 18.

Table 17
SUMMARY TABLE - MATTHEWS LAKE

| Name | Depth (m) | Dominant Species | Shoreline Vegetation | Wildlife Use | Waterfowl Breeding Area Potential | Fish Habitat Potential |
|---------------|-----------|---|--|------------------|-----------------------------------|------------------------|
| Matthews Lake | >2.0 | Horsehead lily (<u>Nuphar variegatum</u>) Clasping-leaved pondweed White stemmed pondweed Ribbon-leaved pondweed | Bulrushes, Cattails Sedge (10-50 m) (floating mat) Willow (5-30 m) | Scaups, gulls | Moderate | Poor |

5.3 BL1, Trap Lake, BL2 and BL3

Six of the smaller ponds examined had similar characteristics; a level, poorly drained shoreline area with organic soils, a 10-20 m wide zone of sedges, shallow depth, and extensive cover of floating-leaved and submerged macrophytes.

5.3.1 BL1

This pair of shallow ponds that are connected to Beaver Lake during high water years.

The occurrence of horsehead lily and arrowleaf (*Sagittaria cuneata*) near the middle of this pond indicates its maximum depth is probably about 1.5 m. Accompanying submerged species include milfoil, clasping-leaved pondweed and sago pondweed. Sago pondweed, a highly desirable food species for waterfowl, is especially common on the east side of the pond.



Plate 20. A view of Matthews Lake from the south, showing relatively broad zones of emergent plants and sedges along the eastern shore, and narrower emergent and sedge zones and a broad willow zone on the western shore.



Plate 21. The eastern side of Matthews Lake looking south showing a broad discontinuous emergent zone and a broad sedge zone developed on a floating organic mat.

A poorly drained sedge zone about 10-20 m wide immediately gives way to an upland aspen forest around most of the pond (Plate 22). This is the Aspen-Poplar/Cranberry forage type (A2), growing on moderately well drained Brunisolic Gray Luvisols. An emergent cattail zone about 5 m wide is confined to the east shore.

Table 18 gives a summary of BL1. The location of BL1 is found on Figure 18.

Table 18
BL1 Summary Table

| Name | Depth (m) | Dominant Species | Shoreline Vegetation | Wildlife Use | Waterfowl Breeding Area Potential | Fish Habitat Potential |
|------|-----------|---|---|--------------|-----------------------------------|------------------------|
| BL1 | 1.5 | Horsehead lily Arrowleaf (<u>Sagittaria cuneata</u>) Milfoil, clasping-leaved pondweed, sago pondweed | Bulrushes (5-15 m) Cattails Sedges (10-30 m) Willow fringe | Mallards | | Poor |

5.3.2 Trap Lake

This also consists of a pair of basins, separated by a low saddle that is probably submerged during high water years.

Horsehead lily grows in the middle of these ponds, which appear to be less than 1 m deep. Submerged plants include milfoil, clasping-leaved pondweed and white-stemmed pondweed. Sago pondweed was observed in the northern, but not the southern basin.

The ponds are ringed by a 5-10 m wide zone of bulrushes and cattails, a 10-20 m wide sedge zone, and a narrow fringe of willows, forage type Willow/Sedge (B2) (Plate 23).

5.3.3 BL2

Horsehead lily grows in the middle of this pond, which appears to be 1-1.5 m deep. Submerged species include milfoil, white-stemmed pondweed, ribbon-leaved pondweed, and what appeared to be **Potamogeton friesii**. Sago pondweed occurred with sparse cover.

The pond supports a narrow (1-5 m) fringe of cattails, a 10-20 m wide sedge zone, and a discontinuous fringe of willows, forage type Willow/Sedge (B2).

5.3.4 BL3

This pond is similar to Trap Lake, although the emergent and sedge zones are narrower (5-10 m) and horsehead lily is not as common (Plate 24). It supports the same submerged species, and sago pondweed is abundant along the east shore where the emergent cover is discontinuous.

BL1, Trap Lake, BL2 and BL3 have similar characteristics and can be evaluated as a group.

Evaluation

Up to two dozen mallards were observed on each of these ponds; diving ducks were not seen.

Although these ponds are small, their shallowness, an extensive zone of sedges and emergent plants for nesting sites and the occurrence of sago pondweed give them a fairly high potential as waterfowl breeding areas.

These ponds are too shallow to be planted with fish.

The occurrence of a boggy sedge/emergent zone restricts the east of access to the water's edge.

Trap Lake, BL2 and BL3 can be located on Figure 18. Table 19 shows a summary for these water bodies.

Table 19

TRAP LAKE, BL2 AND BL3 SUMMARY TABLE

| Name | Depth (m) | Dominant Species | Shoreline Vegetation | Wildlife Use | Waterfowl Breeding Area Potential | Fish Habitat Potential |
|---------------------|-----------|--|---|--------------|-----------------------------------|------------------------|
| Trap Lake, BL2, BL3 | >1.0 | Horsehead lily, milfoil, clasping-leaved pondweed, white stemmed pondweed, sago pondweed | Bulrushes (5-15 m) Cattails Sedges (10-30 m) Willow fringe | Mallards | High | Poor |



Plate 22. BL1, showing a wide zone of sedges and the lack of an emergent or willow zone on most of the shoreline.



Plate 23. The northern basin of Trap Lake, showing wide zones of emergent plants and sedges and a narrow fringe of willows.



Plate 24. A portion of northshore of BL3 with narrow, continuous emergent, sedge and willow zones. These zones are somewhat narrower on the southern shore.

5.4 BL4 and BL5

These ponds are about 1-1.5 m deep, had discontinuous emergent and sedge zone (Plate 25) and only supported milfoil and white-stemmed pondweed in open water.

Evaluation

About a dozen scaup but no dabblers were observed on both of these ponds.

A lack of food and cover gives these ponds a low potential as waterfowl habitat with present water levels. Lower water levels may expose significant areas of suitable habitat (Plate 26).

The steepness of the shoreline and a lack of an organic sedge zone makes access to the water easy.

The brush forage type Willow/Sedge (B2) is found on the perimeter of these ponds. The Black Spruce-Tamarack/Sedge/Moss type (L1) was observed growing on the perimeter of the organic soil zone. The upland vegetation, predominantly aspen forage types, Aspen-Poplar/Cranberry (A2) and Aspen/Cranberry/Sarsaparilla (A3) are found on the well to moderately well drained soils surrounding these ponds. Small pockets of the White Spruce/Aspen/Cranberry/Sarsaparilla type (Sw1) can be seen scattered throughout the aspen.

Table 20 shows a summary for these ponds. The location of BL4 and BL5 is illustrated in Figure 18.

Table 20
BL4 AND BL5 SUMMARY TABLE

| Name | Depth (m) | Dominant Species | Shoreline Vegetation | Wildlife Use | Waterfowl Breeding Area Potential | Fish Habitat Potential |
|----------|-----------|---------------------------------|----------------------|--------------|-----------------------------------|------------------------|
| BL4, BL5 | 1-1.5 | Milfoil, white-stemmed pondweed | - | Scaups | Low | Low |

Table 21 is a brief comparative evaluation of the eight waterbodies surveyed for waterfowl habitat, waterfowl breeding, and fish habitat potential.

Table 21
WATERBODY EVALUATION SUMMARY

| | <u>Wildlife Use</u> | <u>Waterfowl Breeding Potential</u> | <u>Fish Habitat Potential</u> |
|---------------|---------------------|-------------------------------------|-------------------------------|
| Roseland Lake | ++ | - | + |
| Matthews Lake | + | +(-) | - |
| Trap Lake | + | ++ | - |
| BL1 | + | - | - |
| BL2 | + | ++ | - |
| BL3 | + | ++ | - |
| BL4 | +(-) | - | - |
| BL5 | +(-) | - | - |

Legend: ++ excellent
+ good
+(-) moderate to low
- poor

Wildlife use was observed to some degree on all ponds, however, Trap Lake, BL2 and BL3 were found to have the best potential for waterfowl breeding habitat.

Roseland Lake was the only waterbody that was deep enough to provide adequate fish habitat.



Plate 25. A portion of BL4 along the northwest shore with a narrow emergent and sedge zones that only occur on a small portion of the shoreline.



Plate 26. The southeast shore of BL4. Sedge and emergent zones do not exist at present, but the occurrence of sedge tussocks in the upper right suggest these zones might be significant if water levels were lower.

6. RESOURCE INVENTORY INTEGRATION

The purpose of Resource Inventory Integration is to combine the results of the Physical Land Classification and Forage Inventory into one homogeneous concept. Landscape features such as soil, parent material, drainage and topography are major factors which influence the diversity of forage types.

In order to provide a more complete understanding of how these factors influence vegetation, a schematic diagram with accompanying text has been interpreted. The Resource Inventory Integration used the Geomorphic Systems established in Section 3 (1:15 000 Physical Land Classification map). The Forage Inventory information (1:15 000 Forage Inventory map) was used to determine the co-relationship between physical characteristics and vegetation in the East Beaver Lake study area. Each Resource Inventory Integration System was designed to illustrate major characteristic features. However, they do not represent a particular location within the study area, or reflect specific properties of soils or forage types.

Two Integrated Systems have been established: Integrated System I (Veneered Hummocky Moraine) and Integrated System II (Glaciofluvial Lowland).

6.1 Integrated System I - Veneered Hummocky Moraine

Integrated System I represents an area, as defined by the map unit lines (1:15 000 Physical Land Classification map), of irregular knob and kettle topography indicative of hummocky disintegration moraine. This

area, which ranges from undulating gentle slopes to steep short slopes of up to 40% presents a wide variety of physical conditions. This variation is reflected in the presence of a complex of forage types.

The vegetation is dominated by dense young stands of trembling aspen, with older pockets of more mature aspen or white spruce scattered throughout the system. This not only represents mesotrophic and well drained conditions, but indicative of frequent light burning of aspen in the past. The occurrence of repeated light fires has restricted aspen maturity and/or white spruce succession (provided there is a seed source). Generally, mature stands were present adjacent to moister sites where fire was inhibited.

Glaciofluvial veneers of varying thicknesses cover the morainal system and moderately well to well drained. Brunisolic Gray Luvisol soils have developed. These areas are usually found on gently sloping hummocks or undulating moraine are characterized by the presence of the Aspen/Cranberry/Sarsaparilla type (A3). This forage type is dominant on mid to upper slopes where the till knolls are well drained. In areas where the veneer is thinner, and the slopes range up to 25%, Orthic Gray Luvisols predominate the Aspen/Alder/Twinflower type (A1) and Aspen/Cranberry/Sarsaparilla type (A3) are dominant on lower to mid slopes. These forage types occur under a wide range of soil, moisture and nutrient conditions and are often transitional. This is reflected in the mapping, where the two types are present within the same area.

In cases where the soils are imperfectly drained (e.g. Orthic Gleysols) or fire has been excluded (e.g. surrounding depressions), the

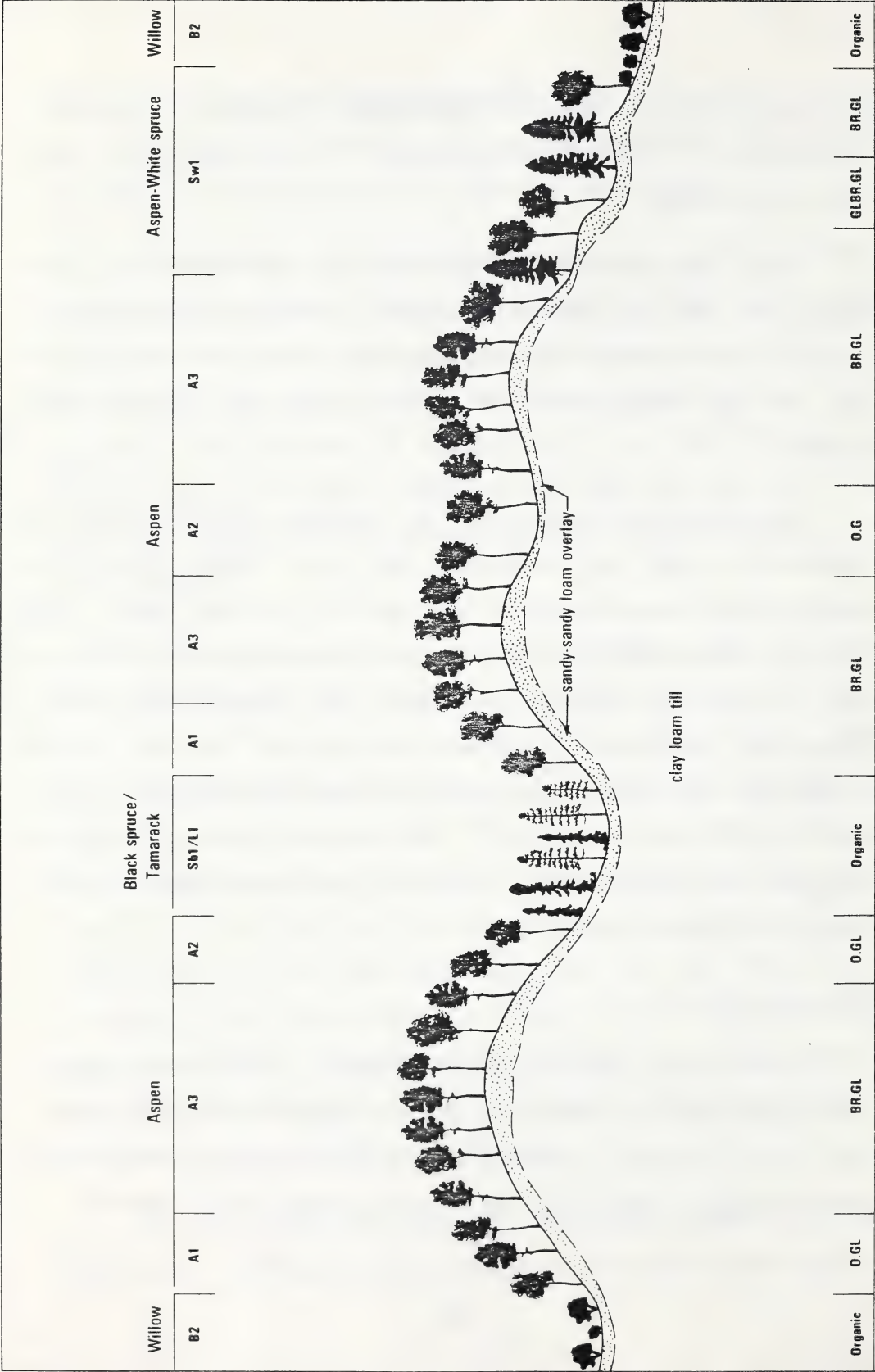
Aspen-Poplar/Cranberry type (A2) predominates. This is an older, more mature version of Aspen/Cranberry/Sarsaparilla type (A3) with a more developed understory.

White Spruce-Aspen/Cranberry-Sarsaparilla (Sw1) exists on sites ranging from well to imperfectly drained. However, the presence or absence of fire determines the white spruce succession. The occurrence of this type was infrequent and the stands occupied small pockets within System I.

The interknob areas, which are characteristically poorly or imperfectly drained, are occupied by the wetland forage types. The Tamarack-Black Spruce/Sedge/Moss (L1) type is the most common, with succession towards the Black Spruce/Labrador Tea/Moss type (Sb1) occurring when the peat moss component increases. This produces more acidic, oligotrophic conditions. Nutrient-rich areas are occupied by the Willow/Sedge (B2) forage type. Soils in these areas include: Terric Mesisols and Terric Fibrisols. This wetland complex is scattered throughout Integrated System I. Figure 19 illustrates a schematic cross-section of Integrated System I.

6.1.1 Land Use

Land use was observed to be primarily restricted to seismic activity and hunting. Recent clearing has increased access for hunters. The evidence of logging indicates that mature spruce was used to build trappers cabins or homesteads, but extensive logging was not apparent.



Note: This cross-section does not represent a particular location within the study area nor does it reflect specific proportions of soils or forage types.

Figure 19: A Schematic Cross-section of Integrated System I

A correctional facility is present in the northwestern portion of the study area. In addition, local nuisance grounds have been established in the vicinity. A pipeline right-of-way cuts across the northeastern portion of the study area.

Improved and unimproved grazing lands, hay and grainfields, farms, acreages, cottages, camping and fishing facilities are major uses of land in the surrounding areas.

6.2 Integrated System II - Glaciofluvial Lowland

This system consists of a glaciofluvial lowland with subdued to undulating terrain of about 2-5 % slope with several morainal outcrops of 6 to 15 % slope. Much of the area is dominated by organic depressions that have small, rapidly drained sandy ridges interspersed within the organic component. Fine textured deposits have created ponds by impeding drainage. These extremes of rapidly drained to very poorly drained soils, in conjunction with the morainal "islands", have provided a diverse physical land base.

Organic soils make up a distinct portion of System II. The vegetation reflects the changes in site condition from wet to dry and from eutrophic to oligotrophic.

Ponds and sloughs are found distributed throughout this system. A more detailed description of the pond and shoreline communities (S) can be obtained in Section 5 (East Beaver Lake Pond Survey). The Willow/Sedge type (B2) grows around the edges of the ponds.

Where sites are wet and eutrophic, the Willow/Sedge type (B2) is prevalent. As the peat buildup increases and the site becomes drier, the tamarack types begin to appear. These areas are occupied by the Tamarack/Birch/Sedge/Moss type (L2). These sites are still eutrophic, but are not as wet as those of the Willow/Sedge (B2) type.

When conditions change toward more oligotrophic and acidic habitats, the Tamarack-Black Spruce/Sedge/Moss type (B1) begins to dominate. It is transitional to the black spruce bog, Black Spruce/Labrador tea/Moss type (Sb1), which is characterized by high peat moss content and acidic and oligotrophic site conditions. These black spruce areas are found on the outer edges of wetland systems.

Often observed within these black spruce-tamarack complexes are thick sandy glaciofluvial deposits. These are generally rapid to very rapidly drained sites; the jack pine types Pine/Bearberry/Lichen (P2) and Pine/Alder/Blueberry (P3) types are found. These areas are subject to intense fires, thus maintaining the jack pine. The black spruce component is easily killed by fire and never becomes dominant. On moderately well to well drained sites, the Pine/Alder/ Blueberry type (P3) predominates. The trembling aspen type Aspen/Alder/ Twinflower (A1a) is often found growing under the same conditions, and forms a transition from the pine forage type to the aspen forage type. Soils within the wetland system generally comprise Terric Mesisols, Terric Fibrisols, with some occurrences of Rego Humic Gleysols.

The morainal outcroppings or "islands" are capped by a thinner veneer. Slope conditions are more pronounced, rising 6-15%. This is a

contrast to the undulating or subdued landscape of the surrounding area. The aspen type, Aspen/Cranberry/ Sarsaparilla (A3) is common on these well to moderately well drained hummocks.

Older pockets of the Aspen-Poplar/Cranberry type (A2) are often found growing on the sites bordering wetlands or in areas where fire has not occurred.

The White Spruce-Aspen/Cranberry/Sarsaparilla (Sw1) types are also a component of Integrated System II. However, as explained in System I, these stands are not extensive and are confined to small island pockets. Trembling aspen and white spruce are generally found on Brunisolic Gray Luvisols within the glaciofluvial lowland system (Figure 20).

6.2.1 Land Use

Land use is similar to that described in System I. Since the area has greater amounts of wetland, hunting and seismic activity is confined to the winter when the area is frozen and travel is not limited by floating bogs or open water.

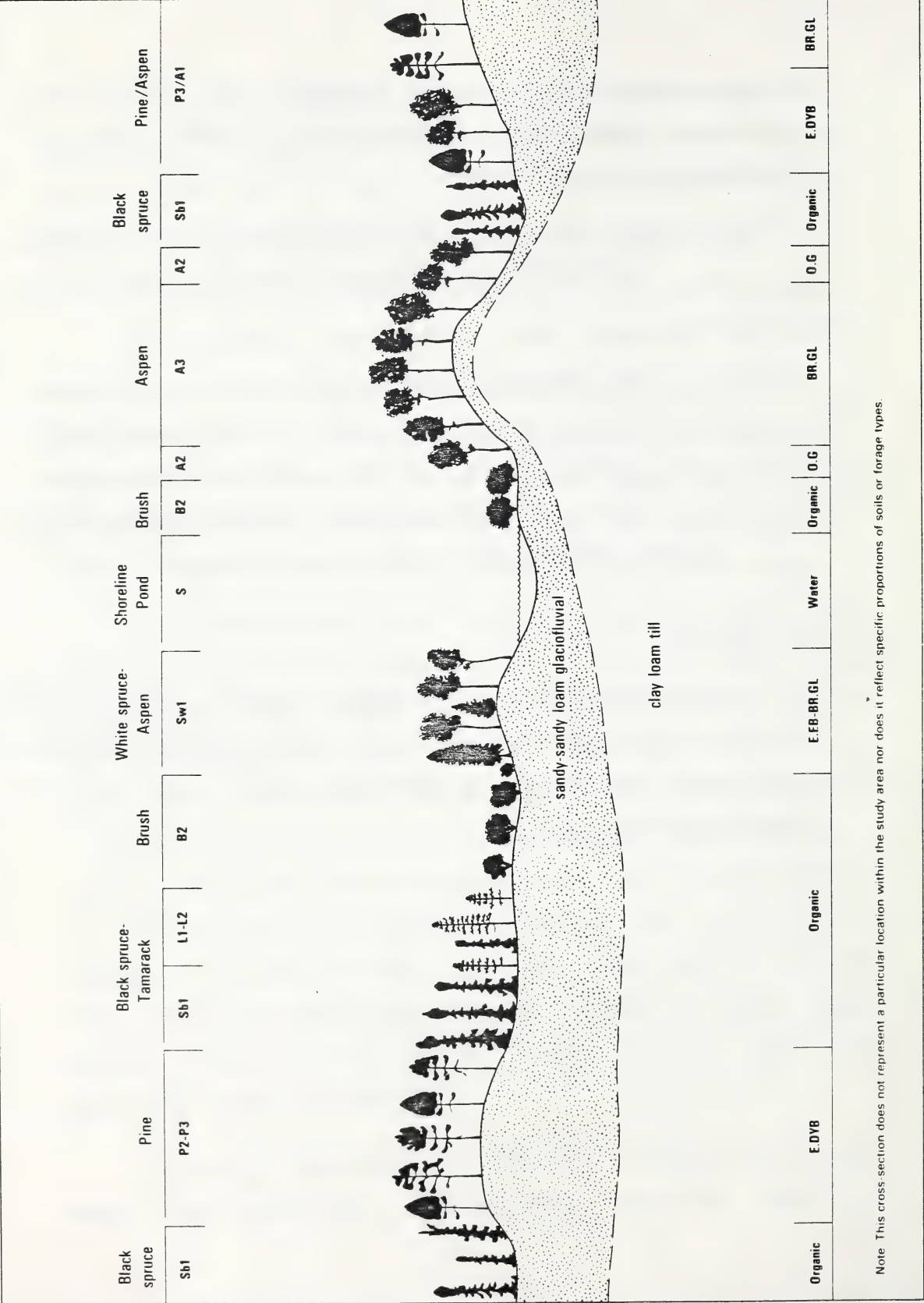


Figure 20: A Schematic Cross-section of Integrated System II

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APPENDIX A
DETAILED DESCRIPTIONS OF SOILS AT SELECTED SITES

SOIL LABORATORY ANALYSIS PROCEDURES

The soil samples from representative sites were analyzed in the laboratory (Jass Laboratories Ltd.) for various parameters.

Soil pH was measured in 0.01M CaCl_2 , using (2:1) CaCl_2 to soil dilution (McKeague 3.11). Acidity measured in this manner is diagnostic for Brunisols.

Texture was determined by the hydrometer method. Soil is soaked in Calgon solution and distilled water overnight. It is then mixed in a soil blender and transferred to a cylinder. The density of the soil suspension is read by the hydrometer after various times of settling. Particle size is then calculated using sedimentation time and a sedimentation parameter (McKeague 2.12).

The percent carbon was measured by the Mebius method (Mebius, 1959). Soil in a H_2SO_4 - $\text{K}_2\text{Cr}_2\text{O}_7$ mixture. This was refluxed and Radox titrated with Mohr's salt at room temperature with N-phenylanthracilic acid as an indicator.

Cation exchange capacity (CEC) and exchangeable cation were done by NH_4OAC at pH 7 (Chapman, 1965). CEC was determined by displacement and determination of absorbed NH_4^+ by macro-Kjeldahl distillation. Exchangeable cations (Ca^{++} , Mg^{++} , Na^+ , K^+) are measured by displacement of cations of ammonia saturation and determination of exchangeable cations by atomic absorption spectroscopy.

The available phosphorus (P) was measured by using .03N NH_4F in .03N H_2SO_4 as an extracting solution with the soil sample. The sample was filtered and the absorbance of the filtrate was read by autoanalyzer at 400 nm (McKeague 4.44).

Available nitrogen (N) was measured by using .02N CuSO_4 and .007N Ag_2SO_4 as an extracting solution. The sample is filtered, and boiled dry. Distilled water and ammonium hydroxide are added. The absorbance is read on a spectrophotometer at 420 nm. Calculations are then made to determine ppm N (McKeague 4.32).

Electrical conductivity was measured by making a paste of soil and distilled water. The conductivity is measured using a conductivity bridge and conductivity cell.

BL-1

Location : NE 36-66-13-W4
 Soil Classification : Brunisolic Gray Luvisol
 Parent Geological Material : Sandy glaciofluvial veneer over clay loam till
 Landform : Moraine
 Surface Expression : Hummocky; 6 to 30% slope
 Drainage : Moderately well
 Vegetation : Aspen/Alder/Twinflower

Soil Profile Description

L-H 10 to 0 cm; black (10YR 2/1 m) semi-decomposed organic matter.
 Ae 0 to 15 cm; light gray (10YR 7/2d) sandyloam; moderate, medium, platy; slightly hard, friable, non-sticky, non-plastic.
 AB 15 to 25 cm; light gray (10YR 7/2d) loam-silt loam; moderate, medium platy (Pseudo), slightly hard, friable, non-sticky, non-plastic.
 Bm 25 to 42 cm; dark brown (10YR 4/3d) sandy clay loam; moderate, fine, subangular blocky; hard, firm, slightly sticky, slightly plastic.
 II Bt 42 to 53 cm; dark yellowish brown (10YR 3/4m) clay loam; moderate, medium, subangular blocky; very hard, very firm, sticky, slightly plastic.
 II C 53+ cm; dark brown (10YR 3/3m) clay loam; amorphous; hard, firm, sticky, slightly plastic; 5% gravel (sub-rounded).

Soil Test Results

| Horizon | Depth (cm) | pH | Organic Matter % | Available | | | Conductivity mmhos | Ca | Exchangeable Cations | | | CEC me/100 grams |
|---------|------------|------|------------------|-----------|-------|-------|--------------------|-----|----------------------|-----|-----|------------------|
| | | | | N ppm | P ppm | K ppm | | | Mg | Na | K | |
| Ae | 0-15 | 6.04 | 1.0 | 3.4 | 29.5 | 85 | 0.28 | 7.3 | 1.3 | 0.3 | 0.4 | 9.8 |
| AB | 15-25 | 5.1 | 0.4 | 3.1 | 19.5 | 45 | 0.19 | 3.0 | 1.3 | 0.3 | 0.2 | 5.9 |
| Bm | 25-42 | 4.95 | 0.5 | 2.6 | 11.0 | 70 | 0.15 | 5.8 | 3.0 | 0.3 | 0.2 | 10.9 |
| II Bt | 42-53 | 4.8 | 0.5 | 3.4 | 7.5 | 95 | 0.2 | 8.8 | 5.3 | 0.3 | 0.3 | 16.6 |

BL-2

Location : NW 30-66-12-W4
 Soil Classification : Eluviated Dystric Brunisol
 Parent Geologic Material : Sandy glaciofluvial
 Landform : Moraine-controlled glaciofluvial
 Surface Expression : Undulating; 0 to 2.5% slope
 Drainage : Rapidly
 Vegetation : Pine/Bearberry/Lichen

Soil Profile Description

L-H 3 to 0 cm; black (10YR 2/1m) partially decomposed organic matter.
 Ae 0 to 8 cm; light gray (10YR 7/2m) loamy sand to sandy loam; weak, fine, platy to fine granular; soft, very friable, non-sticky, non-plastic.
 Bm 1 8 to 25 cm; yellowish brown (10YR 5/8m) sandy loam, weak to moderate, medium subangular blocky; soft, very friable, non-sticky, non-plastic.
 Bm 2 25 to 55 cm; brownish yellow (10YR 6/8m) gravelly coarse sand; single grain; soft, very friable, non-sticky, non-plastic; 35% gravel (rounded).
 C 55+ cm; very pale brown (10YR 7/4m) gravel; amorphous, loose, loose, non-sticky, non-plastic; 80% gravel (rounded) coarse sand in voids.

Soil Test Results

| Horizon | Depth (cm) | pH | Organic Matter % | Available | | | Conductivity mmhos | Ca | Exchangeable Cations | | | CEC me/100 grams |
|---------|------------|------|------------------|-----------|-------|-------|--------------------|-----|----------------------|-----|-----|------------------|
| | | | | N ppm | P ppm | K ppm | | | Mg | Na | K | |
| Ae | 0- 8 | 4.2 | 0.4 | 2.7 | 19.0 | 30 | 0.08 | 0.8 | 0.3 | 0.3 | 0.2 | 3.5 |
| Bm 1 | 8-25 | 4.85 | 0.5 | 2.3 | 23.5 | 45 | 0.12 | 1.8 | 0.5 | 0.3 | 0.2 | 6.3 |
| Bm 2 | 25-55 | 5.1 | 0.1 | 2.0 | 25.0 | 60 | 0.05 | 1.0 | 0.3 | 0.3 | 0.1 | 2.1 |

BL-3

Location : NE 30-66-12-W4
 Soil Classification : Orthic Gray Luvisol
 Parent Geologic Material : Sandy glaciofluvial veneer over sandy clay loam till
 Landform : Morainial
 Surface Expression : Inclined; 10 to 30% slope
 Drainage : Moderately well
 Vegetation : Aspen/Willow/Sarsaparilla

Soil Profile Description

L-H 6 to 0 cm; black (10YR 2/1 m) semi-decomposed organic matter.
 Ae 1 0 to 12 cm; very pale brown (10YR 7/3m) sandy loam; weak, fine, platy to moderate, fine, granular; slightly hard, friable, non-sticky, non-plastic.
 Ae 2 12 to 31 cm; light gray (10YR 7/2m) sandy loam; moderate, medium, platy; soft, very friable, non-sticky, non-plastic; 5% gravel (sub-rounded).
 II Bt 31 to 80 cm; brown (10YR 5/3m) clay loam; strong, medium, blocky; hard, friable, slightly sticky, slightly plastic; 5% gravel (sub-rounded).
 II C 80+ cm; brown (10YR 5/3m) clay loam; amorphous; slightly hard, friable, slightly sticky, slightly plastic.

Soil Test Results

| Horizon | Depth (cm) | pH | Organic Matter % | Available | | | Conductivity mmhos | Ca | Exchangeable Cations | | | CEC me/100 grams |
|---------|------------|------|------------------|-----------|-------|-------|--------------------|-----|----------------------|----------------|-----|------------------|
| | | | | N ppm | P ppm | K ppm | | | Mg | N me/100 grams | K | |
| Ae 1 | 0-12 | 5.35 | 0.8 | 2.9 | 27.0 | 65 | 0.24 | 3.8 | 0.8 | 0.3 | 0.2 | 5.9 |
| Ae 2 | 12-31 | 5.5 | 0.4 | 2.7 | 15.0 | 35 | 0.22 | 1.8 | 0.8 | 0.3 | 0.2 | 4.0 |
| II Bt | 31-80 | 5.1 | 0.5 | 3.0 | 2.5 | 98 | 0.26 | 9.0 | 4.8 | 0.3 | 0.3 | 16.8 |

BL-4

| | | |
|--------------------------|---|--|
| Location | : | SE 36-66-13-W4 |
| Soil Classification | : | Terric Fibrisol |
| Parent Geologic Material | : | Fibric forest-fen peat veneer over sandy glaciofluvial |
| Landform | : | Horizontal fen |
| Surface Expression | : | Horizontal; 0 to 0.5% slope |
| Drainage | : | Very poorly |
| Vegetation | : | Tamarack/Birch/Sedge/Moss |

Soil Profile Description

| | |
|------|--|
| Of 1 | 0 to 10 cm; fibric sphagnum moss; slightly decomposed; von Post, 02. |
| Of 2 | 10+ cm; fibric sphagnum moss; moderately decomposed; von Post, 03. |

BL-5

Location : NE 29-66-12-W4
 Soil Classification : Eluviated Dystric Brunisol
 Parent Geologic Material : Sandy glaciofluvial
 Landform : Moraine-controlled glaciofluvial
 Surface Expression : Undulating; 6 to 9% slope
 Drainage : Rapidly to well
 Vegetation : Pine/Alder/Blueberry

Soil Profile Description

L-H 5 to 0 cm; black (10YR 2/1m) partially decomposed organic matter.

 Ae 0 to 11 cm; light gray (10YR 7/2m) fine sandy loam; weak, fine, granular; soft, very friable, non-sticky, non-plastic; 5% gravel (rounded), 10% cobbles (rounded), 5% stones (rounded).

 Bm 11 to 36 cm; yellowish brown to brownish yellow (10YR 5.5/6 m) gravelly sandy loam; moderate, medium, subangular blocky; hard, very friable, non-sticky, non-plastic; 10% gravel (rounded), 15% cobbles (rounded), 10% stones (rounded).

 C 36 to 65+ cm; brownish yellow (10YR 6/8m) gravelly coarse sand; single grain; slightly hard, very friable, non-sticky, non-plastic; 20% gravel (rounded), 15% cobbles (rounded), 10% stones (rounded).

Soil Test Results

| Horizon | Depth (cm) | pH | Organic Matter % | Available | | | Conductivity mmhos | Ca | Exchangeable Cations | | | CEC me/100 grams |
|---------|------------|-----|------------------|-----------|-------|-------|--------------------|-----|----------------------|----------------|----------------|------------------|
| | | | | N ppm | P ppm | K ppm | | | Mg me/100 grams | N me/100 grams | K me/100 grams | |
| Ae | 0-11 | 4.8 | 0.9 | 2.2 | 20.5 | 45 | 0.19 | 2.8 | 0.8 | 0.3 | 0.1 | 6.2 |
| Bm | 11-36 | 4.3 | 0.4 | 2.5 | 36.5 | 97 | 0.18 | 3.3 | 1.3 | 0.3 | 0.3 | 10.5 |

BL-6

Location : NE 21-66-12-W4
 Soil Classification : Brunisolic Gray Luvisol
 Parent Geologic Material : Sandy glaciofluvial veneer over clay loam till
 Landform : Morainal
 Surface Expression : Undulating to inclined; 10 to 25% slope
 Drainage : Moderately well
 Vegetation : Aspen/Cranberry/Sarsaparilla

Soil Profile Description

L-H 6 to 0 cm; black (10YR 2/1d) semi-decomposed organic matter.
 Ae 0 to 6 cm; light gray (10YR 7/1d) loam; moderate, medium, platy; hard, firm, slightly sticky, slightly plastic.
 Bm 6 to 13 cm; brown (10YR 5/3d) clay loam; moderate, medium, subangular blocky; hard, firm, slightly sticky, slightly plastic.
 II Bt 13 to 32 cm; dark brown (10YR 3/3d) clay; strong, medium subangular blocky to medium blocky; very hard, very firm, sticky, plastic; 8% gravel (angular).
 II C 32 to 55+ cm; black (10YR 2/1d) clay loam; amorphous; very hard, very firm, sticky, plastic; 10% gravel (angular).

Soil Test Results

| Horizon | Depth (cm) | pH | Organic Matter % | Available | | | Conductivity mmhos | Ca | Exchangeable Cations | | | CEC me/100 grams |
|---------|------------|------|------------------|-----------|-------|-------|--------------------|------|----------------------|----------------|----------------|------------------|
| | | | | N ppm | P ppm | K ppm | | | Mg me/100 grams | N me/100 grams | K me/100 grams | |
| Ae | 0- 6 | 5.4 | 0.8 | 2.8 | 14.5 | 40 | 0.28 | 3.5 | 0.8 | 0.3 | 0.1 | 9.3 |
| Bm | 6-13 | 5.0 | 1.0 | 3.3 | 9.0 | 55 | 0.19 | 8.0 | 3.0 | 0.3 | 0.2 | 16.2 |
| II Bt | 13-32 | 5.65 | 1.2 | 2.8 | 2.0 | 112 | 0.32 | 17.3 | 6.5 | 0.3 | 0.4 | 27.6 |

BL-7

Location : NE 35-66-13-W4
 Soil Classification : Brunisolic Gray Luvisol
 Parent Geologic Material : Sandy glaciofluvial veneer over clay loam till
 Landform : Morainal
 Surface Expression : Hummocky; 5 to 8% slope
 Drainage : Moderately well
 Vegetation : Aspen-Poplar/Cranberry

Soil Profile Description

L-H 14 to 0 cm; black (10YR 2/1d) semi-decomposed organic matter.
 Ae 0 to 18 cm; light brownish gray (10YR 6/2d) loam to silt loam; moderate, medium, platy to weak, fine, platy; slightly hard, friable, non-sticky, non-plastic.
 Bm 18 to 26 cm; brown (10YR 5/3d) clay loam to loam; moderate to strong; medium, granular; hard, firm, slightly sticky, slightly plastic; 5% gravel (sub-rounded).
 II Bt 26 to 60 cm; dark brown to brown (10YR 4/3d) clay loam; string, medium, subangular blocky; very hard, very firm, sticky, slightly plastic; 5% gravel (sub-rounded).
 II C 60+ cm; brown to dark greyish brown (10YR 5/3d) (10YR 4/2d) clay loam; amorphous; hard, firm, sticky, slightly plastic; 5% gravel (sub-rounded).

Soil Test Results

| Horizon | Depth (cm) | pH | Organic Matter % | Available | | | Conductivity mmhos | Ca | Exchangeable Cations | | | CEC me/100 grams |
|---------|------------|------|------------------|-----------|-------|-------|--------------------|------|----------------------|----------------|-----|------------------|
| | | | | N ppm | P ppm | K ppm | | | Mg | N me/100 grams | K | |
| Ae | 0-18 | 5.3 | 1.0 | 2.8 | 16.5 | 117 | 0.22 | 3.8 | 1.3 | 0.3 | 0.4 | 6.7 |
| Bm | 18-26 | 5.95 | 0.2 | 2.9 | 4.0 | 127 | 0.38 | 7.8 | 3.0 | 0.3 | 0.5 | 12.3 |
| II Bt | 26-60 | 5.6 | 0.7 | 3.4 | 2.0 | 148 | 0.30 | 11.0 | 5.5 | 0.3 | 0.5 | 26.6 |

BL-8

Location : NW 36-66-13-W4
Soil Classification : Terric Fibrisol
Parent Geologic Material : Fibric fen veneer over sandy
glaciofluvial
Landform : Horizontal fen
Surface Expression : Horizontal; 0 to 0.5% slope
Drainage : Very poorly
Vegetation : Willow/Sedge/Moss

Soil Profile Description

Of 1 0 to 5 cm; fibric sphagnum moss; no woody material; von Post, 02.
Of 2 5+ cm; fibric sphagnum moss; no woody material; von Post, 03.

BL-9

Location : NW 29-66-12-W4
 Soil Classification : Brunisolic Gray Luvisol
 Parent Geologic Material : Sandy glaciofluvial
 Landform : Moraine-controlled glaciofluvial
 Surface Expression : Undulating to level; 3 to 7% slope
 Drainage : Well to moderately well
 Vegetation : White Spruce-Aspen/Cranberry-Sarsaparilla

Soil Profile Description

L-H 7-0 cm; black (10YR 2/1m) semi-decomposed organic matter.
 Ae 0-8 cm; light brownish gray (10YR 6/2m) sandy loam; weak, fine, platy to weak, fine, granular; soft, very friable, non-sticky, non-plastic.
 Bm 1 8-22 cm; light yellowish brown (10YR 6/4m) loam; moderate, fine, subangular blocky; slight hard, friable, non-sticky, slightly plastic.
 Bt 1 22-27 cm; dark yellowish brown (10YR 3/4m) clay loam; moderate, medium, subangular blocky; slightly hard, friable, slightly sticky, slightly plastic.
 Bm 2 27-32 cm; very pale brown (10YR 7/3) sandy loam; weak, fine, granular; loose, loose, non-sticky, non-plastic.
 Bt 2 32-51 cm; dark yellowish brown (10YR 4/4m) clay loam; moderate, fine, subangular blocky; slightly hard, firm, sticky, plastic.
 C 51+ cm; dark yellowish brown (10YR 3.5/4m) sandy clay loam; amorphous, slightly hard, firm, sticky, plastic.

Soil Test Results

| Horizon | Depth (cm) | pH | Organic Matter % | Available | | | Conductivity mmhos | Ca | Exchangeable Cations | | | CEC me/100 grams |
|---------|------------|------|------------------|-----------|-------|-------|--------------------|------|----------------------|----------------|----------------|------------------|
| | | | | N ppm | P ppm | K ppm | | | Mg | N me/100 grams | K me/100 grams | |
| Ae | 0- 8 | 4.45 | 1.3 | 3.4 | 22.5 | 90 | 0.22 | 2.5 | 0.8 | 0.3 | 0.3 | 10.0 |
| Bm | 8-22 | 4.55 | 0.4 | 3.3 | 17.5 | 55 | 0.15 | 2.5 | 0.5 | 0.3 | 0.2 | 7.9 |
| Bt | 22-27 | 4.6 | 0.9 | 2.6 | 13.5 | 117 | 0.19 | 9.8 | 2.3 | 0.3 | 0.4 | 19.1 |
| II Bm | 27-32 | 4.85 | 0.4 | 2.8 | 18.0 | 32 | 0.12 | 2.0 | 0.5 | 0.3 | 0.1 | 4.0 |
| II Bt | 32-51 | 5.4 | 0.4 | 2.4 | 11.0 | 98 | 0.28 | 10.8 | 3.5 | 0.3 | 0.3 | 16.8 |

BL-10

| | |
|--------------------------|--|
| Location | : NE 30-66-12-W4 |
| Soil Classification | : Terric Mesic Fibrisol |
| Parent Geologic Material | : Mesic-fibric forest-fen over sandy glaciofluvial |
| Landform | : Horizontal fen |
| Surface Expression | : Horizontal; 0 to 0.5% slope |
| Drainage | : Very poorly |
| Vegetation | : Black spruce/Labrador tea/Feathermoss |

Soil Profile Description

| | |
|----|--|
| Of | 0 to 90 cm; slight decomposition; slightly hard woody material (20-50%); von Post, 03. |
| Om | 90 to 125+ cm; high decomposition; soft woody material (10%); von Post, 05. |

BL-11

| | |
|--------------------------|---------------------------------------|
| Location | : NE 29-66-12-W4 |
| Soil Classification | : Rego Humic Gleysol |
| Parent Geologic Material | : Sandy glaciofluvial |
| Landform | : Moraine-controlled glaciofluvial |
| Surface Expression | : Undulating to level; 10 to 4% slope |
| Drainage | : Poorly |
| Vegetation | : White spruce/Feathermoss |

Soil Profile Description

| | |
|-----|---|
| L-H | 36-0 cm; black (10YR 2/1m) semi-decomposed to decomposed organic matter. |
| Ah | 0-10 cm; black (10YR 2/1m) silty clay loam; weak, fine, subangular blocky; soft, very friable, slightly sticky, slightly plastic.u |
| Cg | 10+ cm; grayish brown (10YR 5/2m) silt loam; amorphous, soft, very friable, non-sticky, non-plastic; mottles are common, medium, distinct, yellowish brown (10YR 5/4m). |

BL-12

| | |
|--------------------------|--|
| Location | : SE 29-66-12-W4 |
| Soil Classification | : Terric Mesisol |
| Parent Geologic Material | : Mesic forest-fen veneer over sandy glaciofluvial |
| Landform | : Horizontal fen |
| Surface Expression | : Horizontal; 0-0.5% slope |
| Drainage | : Very poorly to poorly |
| Vegetation | : Willow/Sedge |

Soil Profile Description

| | |
|----|---|
| Of | 0-15 cm; slightly decomposed; hard woody material (>50%); von Post, 03. |
| Om | 15-60 cm; moderately decomposed; slightly hard woody material (10-20%); von Post, 05. |
| Cg | 60+ cm; black (10YR 2/1m) clay; amorphous; slightly hard, friable, sticky, plastic; mottles are common, medium, prominent; strong brown (7.5YR 5/6m). |

BL-13

Location : SW 22-66-12-W4
 Soil Classification : Brunisolic Gray Luvisol
 Parent Geologic Material : Sandy glaciofluvial veneer over clay loam till
 Landform : Moraine-controlled glaciofluvial
 Surface Expression : Undulating to hummocky; 6 to 9% slope
 Drainage : Well to moderately well
 Vegetation : Aspen/Cranberry/Sarsaparilla

Soil Profile Description

L-H 8-0 cm; black (10YR 2/1m) partially decomposed organic matter.
 Ae 0-8 cm; light gray (10YR 7/2m) very fine sandy loam; weak, fine, platy to fine granular; soft, very friable, non-sticky, non-plastic.
 Bm 8-17 cm; very pale brown (10YR 7/3m) loam; weak, fine, subangular blocky to moderate, fine, platy (pseudo); slightly hard, friable, non-sticky, non-plastic.
 II Bt 17-40 cm; dark brown (10YR 3/3m) clay; moderate, medium, subangular blocky; slightly hard, firm, slightly sticky, slightly plastic; 5% cobbles (angular).
 II C 40+ cm; very dark grey (10YR 3/1m) silty clay loam; amorphous to moderate, fine, subangular block (pseudo); slightly hard, firm, slightly sticky, slightly plastic; 5% cobbles (angular).

Soil Test Results

| Horizon | Depth (cm) | pH | Organic Matter % | Available | | | Conductivity mmhos | Ca | Exchangeable Cations | | | CEC me/100 grams |
|---------|------------|-----|------------------|-----------|-------|-------|--------------------|------|----------------------|----------------|-----|------------------|
| | | | | N ppm | P ppm | K ppm | | | Mg | N me/100 grams | K | |
| Ae | 0- 8 | 5.5 | 1.7 | 3.0 | 12.0 | 83 | 0.35 | 4.8 | 1.3 | 0.3 | 0.3 | 15.1 |
| Bm | 8-17 | 5.1 | 0.6 | 3.0 | 19.0 | 50 | 0.22 | 2.8 | 1.8 | 0.3 | 0.2 | 7.0 |
| II Bt | 17-40 | 4.8 | 0.9 | 4.0 | 2w.0 | 127 | 0.21 | 10.8 | 8.5 | 0.3 | 0.4 | 23.5 |

BL-14

| | |
|--------------------------|--|
| Location | : SW 15-66-12-W4 |
| Soil Classification | : Brunisolic Gray Luvisol |
| Parent Geologic Material | : Sandy glaciofluvial veneer over clay loam till |
| Landform | : Moraine-controlled glaciofluvial |
| Surface Expression | : Hummocky to undulating; 10 to 15% slope |
| Drainage | : Moderately well to well |
| Vegetation | : Aspen/Willow/Sarsaparilla |

Soil Profile Description

| | |
|-------|--|
| L-H | 10-0 cm; black (10YR 2/1m) semi-decomposed organic matter. |
| Ae | 0-9 cm; light brownish gray (10YR 6/2m) very fine sandy loam; moderate, fine, granular; soft, friable, slightly sticky, slightly plastic. |
| Bm | 9-19 cm; light gray (10YR 7/2m) silt loam; moderate, medium, subangular blocky to fine, platy (pseudo); slightly hard, friable, slightly sticky, slightly plastic. |
| II Bm | 19-30 cm; dark brown to brown (10YR 4/3m) clay loam; moderate, medium, subangular blocky; slightly hard, friable, sticky, plastic. |
| II Bt | 30-54 cm; very dark brown (10YR 3/1m) clay loam; moderate, medium, subangular blocky; slightly hard, friable, sticky, plastic. |
| II C | 54+ cm; very dark greyish brown (10YR 3/2m) clay loam; amorphous; slightly hard, friable, sticky, plastic. |

BL-15

Location : SE 9-66-12-W4
 Soil Classification : Eluviated Dystric Brunisol
 Parent Geologic Material : Sandy glaciofluvial
 Landform : Moraine-controlled glaciofluvial
 Surface Expression : Level to undulating; 0 to 2.5% slope
 Drainage : Rapidly to well
 Vegetation : Pine/Alder/Blueberry

Soil Profile Description

L-H 5-0 cm; black (10YR 2/1m) partially decomposed organic matter.
 Ae 0-11 cm; light brownish gray (10YR 6/2m) sandy loam; weak, fine, single grain; loose, loose, non-sticky, non-plastic.
 Bm 1 11-23 cm; yellowish brown (10YR 5/4m) sandy loam; weak, fine, subangular blocky; slightly hard, very friable, non-sticky, non-plastic; 15% gravel (rounded).
 Bm 2 23-31 cm; yellowish brown (10YR 5/4m) clay; moderate, fine, subangular blocky; slightly hard, friable, slightly sticky, plastic.
 C1 31-81 cm; yellowish brown (10YR 5/6m) sand; single grain; loose, loose, non-sticky, non-plastic.
 C2 81+ cm; light gray (10YR 7/2m) sand; single grain; loose, loose, non-sticky, non-plastic.

Soil Test Results

| Horizon | Depth (cm) | pH | Organic Matter % | Available | | | Conductivity mmhos | Ca | Exchangeable Cations | | | CEC me/100 grams |
|---------|------------|-----|------------------|-----------|-------|-------|--------------------|------|----------------------|----------------|----------------|------------------|
| | | | | N ppm | P ppm | K ppm | | | Mg me/100 grams | N me/100 grams | K me/100 grams | |
| Ae | 0-11 | 4.5 | 0.4 | 3.2 | 15.5 | 35 | 0.10 | 0.8 | 0.3 | 0.3 | 0.1 | 2.2 |
| Bm 1 | 11-23 | 5.1 | 0.6 | 2.6 | 33.5 | 50 | 0.17 | 2.3 | 1.0 | 0.3 | 0.2 | 7.0 |
| Bm 2 | 23-31 | 4.2 | 1.0 | 3.2 | 2.0 | 120 | 0.11 | 10.5 | 4.8 | 0.3 | 0.4 | 28.3 |

BL-16

Location : NW 22-66-12-W4
Soil Classification : Eluviated Dystric Brunisol
Parent Geologic Material : Sandy glaciofluvial
Landform : Moraine-controlled glaciofluvial
Surface Expression : Undulating to subdued; 10 to 15% slope
Drainage : Rapidly to well
Vegetation : Aspen/Willow/Sarsaparilla

Soil Profile Description

L-H 10-0 cm; black (10YR 2/1d) partially decomposed organic matter.

Ae 0-12 cm; light brownish gray (10YR 6/2d) very fine sand; weak, fine, platy to fine granular; loose, loose, non-sticky, non-plastic.

Bm 12-35 cm; very pale brown (10YR 7/3d) very fine sand; moderate, medium, subangular blocky to moderate, fine, platy (pseudo); soft, friable, non-sticky, non-plastic.

C 35-100+ cm; dark brown to brown (10YR 4/3d) sandy loam; moderate, medium, platy (pseudo); soft, friable, slightly sticky, non-plastic.

BL-17

| | |
|--------------------------|------------------------------------|
| Location | : NW 15-66-12-W4 |
| Soil Classification | : Eluviated Dystric Brunisol |
| Parent Geologic Material | : Sandy glaciofluvial |
| Landform | : Moraine-controlled glaciofluvial |
| Surface Expression | : Undulating; 4 to 7% slope |
| Drainage | : Well to moderately well |
| Vegetation | : Aspen/Willow/Sarsaparilla |

Soil Profile Description

| | |
|------|---|
| L-H | 6 to 0 cm; black (10YR 2/1 m) semi-decomposed organic matter. |
| Ae | 0 to 5 cm; light brownish gray to light gray (10yR 6.5/2m) loamy sand; moderate, fine, platy; slightly hard, very friable, non-sticky, non-plastic. |
| Bm 1 | 5 to 16 cm; very dark greyish brown (10YR 3/2m) sandy clay loam; moderate, medium subangular blocky; slightly hard, friable, non-sticky, slightly plastic. |
| Bm 2 | 16 to 26 cm; very dark grey (10yR 3/2m) sandy clay loam; moderate, fine, subangular blocky; hard, firm, slightly sticky, slightly plastic; 8% gravel (rounded), 2% cobbles (rounded). |
| C | 26 to 60+ cm; yellowish brown (10YR 5/6m) sand; amorphous; slightly hard, friable, non-sticky, non-plastic. |

BL-18

Location : NW 27-66-12-W4
Soil Classification : Brunisolic Gray Luvisol
Parent Geologic Material : Sandy clay loam, glaciofluvial veneer
over clay loam till
Landform : Morainal
Surface Expression : Hummocky to undulating; 5 to 8% slope
Drainage : Moderately well to well
Vegetation : Aspen-Poplar/Cranberry

Soil Profile Description

L-H 5-0 cm; black (10YR 2/1d) semi-decomposed organic matter.

Ae 0-8 cm; yellowish brown (10YR 5/4d) sandy clay loam; weak, fine, platy to weak, fine, granular; soft, friable, slightly sticky, slightly plastic.

Bm 8-19 cm; dark yellowish brown (10YR 4/4d) sandy clay loam; weak, fine, subangular blocky; slightly hard, friable, slightly sticky, slightly plastic.

II Bt 1 19-32 cm; dark yellowish brown (10YR 3/4d) clay loam; moderate, fine, subangular block; slightly hard, friable, slightly sticky, slightly plastic; 5% gravel (angular), 3% cobbles (angular).

II Bt 2 32-44 cm; very dark greyish brown (10YR 3/2d) clay loam; moderate, medium, subangular blocky; slightly hard, friable, slightly sticky, slightly plastic; 3% gravel (angular), 2% cobbles (angular).

II C 44-60+ cm; very dark brown (10YR 2/2d) clay loam; amorphous; slightly hard, friable, slightly sticky, slightly plastic; 5% gravel (angular).

BL-19

Location : SW 34-66-12-W4
 Soil Classification : Brunisolic Gray Luvisol
 Parent Geologic Material : Sandy glaciofluvial veneer over sandy clay
 Landform : Morainal
 Surface Expression : Hummocky; 9 to 25% slope
 Drainage : Well to moderately well
 Vegetation : Aspen/Cranberry/Sarsaparilla

Soil Profile Description

L-H 4-0 cm; black (10YR 2/1d) partially decomposed organic matter.
 Ae 0-9 cm; gray to light gray (10YR 6/1d) sandy loam; weak, fine, platy; soft, very friable, non-sticky, non-plastic.
 AB 9-17 cm; light gray (10YR 7/2d) loam to sandy loam; weak, fine, granular; very hard, friable, non-sticky, non-plastic; 10% gravel (angular).
 Bm 17-27 cm; pale brown (10YR 6/3d) sandy clay loam; moderate, fine, subangular blocky; slightly hard, friable, slightly sticky, slightly plastic; 15% gravel (rounded).
 II Bt 27-46 cm; dark brown (10YR 3/3d) sandy clay loam; moderate, medium, subangular blocky; slightly hard, friable, slightly sticky, slightly plastic; 3% gravel (angular), 2% cobbles (angular).
 II C 46-60+ cm; very dark greyish brown (10YR 3/2d) sandy clay loam; amorphous; slightly hard, friable, slightly sticky, slightly plastic; 10% gravel (angular).

Soil Test Results

| Horizon | Depth (cm) | pH | Organic Matter % | Available | | | Conductivity mmhos | Ca | Exchangeable Cations | | | CEC me/100 grams |
|---------|------------|------|------------------|-----------|-------|-------|--------------------|-----|----------------------|----------------|----------------|------------------|
| | | | | N ppm | P ppm | K ppm | | | Mg me/100 grams | N me/100 grams | K me/100 grams | |
| Ae | 0- 9 | 5.65 | 1.2 | 3.8 | 14.5 | 55 | 0.32 | 3.3 | 0.8 | 0.3 | 0.2 | 6.4 |
| AB | 9-17 | 5.05 | 0.6 | 3.4 | 10.5 | 43 | 0.28 | 2.8 | 0.8 | 0.3 | 0.1 | 6.3 |
| Bm | 17-27 | 5.1 | 0.7 | 2.4 | 2.5 | 70 | 0.14 | 6.8 | 2.8 | 0.3 | 0.2 | 12.1 |
| II Bt | 27-46 | 4.65 | 0.6 | 2.9 | 2.0 | 80 | 0.11 | 8.5 | 4.3 | 0.3 | 0.3 | 19.1 |

BL-20

| | |
|--------------------------|------------------------------------|
| Location | : SE 28-66-12-W4 |
| Soil Classification | : Rego Humic Gleysol |
| Parent Geologic Material | : Sandy clay loam glaciofluvial |
| Landform | : Moraine-controlled glaciofluvial |
| Surface Expression | : Level; 0 to 0.5% slope |
| Drainage | : Poorly to very poorly |
| Vegetation | : Willow/Sedge/Moss |

Soil Profile Description

| | |
|----|---|
| Of | 32-13 cm; slight decomposition; slightly hard woody material (20-50%); von Post, 03. |
| Om | 13-0 cm; high decomposition; soft woody material (10%); von Post, 05. |
| Ah | 0-16 cm; very dark brown (10YR 2/2m) sandy clay loam; moderate, fine, subangular blocky; slightly hard, friable, slightly sticky, plastic. |
| Cg | 16+ cm; greyish brown (10YR 5/2m) sandy clay loam; amorphous; slightly hard, friable, slightly sticky, plastic; mottles are common, medium, prominent; strong brown (7.5YR 5/6m). |

BL-21

| | |
|--------------------------|---|
| Location | : NE 33-66-12-W4 |
| Soil Classification | : Eluviated Eutric Brunisol |
| Parent Geologic Material | : Sandy glaciofluvial |
| Landform | : Moraine-controlled glaciofluvial |
| Surface Expression | : Inclined to undulating; 5 to 20% slope |
| Drainage | : Well |
| Vegetation | : White spruce-Aspen/Cranberry-Sarsaparilla |

Soil Profile Description

| | |
|-----|--|
| L-H | 13-0 cm; black (10YR 2/1m) semi-decomposed organic matter. |
| Ae | 0-14 cm; light gray (10YR 7/2m) very fine loamy sand; moderate, medium, platy; slightly hard, friable, non-sticky, non-plastic; 5% gravel (rounded). |
| Bm | 14-32 cm; dark yellowish brown (10YR 4/4m) gravel; single grain; soft, very friable, non-sticky, non-plastic; 40% gravel (rounded), 25% cobbles (rounded), 5% stones (rounded) (sandy matrix). |
| C | 32-85+ cm; yellowish brown (10YR 5/4m) sandy clay loam; amorphous; slightly hard, friable, slightly sticky, slightly plastic; 15% gravel (rounded and angular). |

BL-22

Location : NE 33-66-12-W4
Soil Classification : Brunisolic Gray Luvisol
Parent Geologic Material : Sandy clay loam glaciofluvial veneer over sandy clay loam till
Landform : Morainal
Surface Expression : Undulating; 3 to 5% slope
Drainage : Moderately well to well
Vegetation : White spruce-Aspen/Cranberry/Sarsaparilla

Soil Profile Description

L-H 10-0 cm; black (10YR 2/1d) partially decomposed organic matter.

Ae 0-7 cm; grayish brown (10YR 5/2d) fine sandy clay loam; weak, fine, platy; soft, friable, slightly sticky, slightly plastic.

Bm 7-15 cm; dark brown (10YR 4/3d) fine sandy clay loam; weak, fine, subangular blocky to fine, platy (pseudo); slightly hard, friable, slightly sticky, slightly plastic.

II Bt 15-31 cm; very dark grayish brown (10YR 3/2d) sandy clay loam; moderate, fine, subangular blocky; slightly hard, friable, slightly sticky, slightly plastic.

II C 31+ cm; very dark brown (10YR 2/2d) sandy clay loam; amorphous; slightly hard, firm, slightly sticky, slightly plastic.

APPENDIX B

VEGETATION, ENVIRONMENT AND MENSURATION DATA FOR
EAST BEAVER LAKE AND SPECIAL LAKELAND STUDY AREAS

EAST BEAVER LAKE SPECIES LIST

| <u>Code</u> | <u>Name</u> | <u>Latin Name</u> | <u>Common Name</u> |
|-------------|-------------|----------------------------------|----------------------|
| ABIE | BAL | <i>Abies balsamea</i> | Balsam fir |
| ACHI | MIL | <i>Achillia millefolium</i> | Common yarrow |
| ACHI | SIB | <i>Achillia siberica</i> | Many-flowered yarrow |
| ACTA | RUB | <i>Actaea rubra</i> | Red baneberry |
| AGRO | SCA | <i>Agrostis scabra</i> | Tickle grass |
| AGRO | STO | <i>Agrostis stolonifera</i> | Red top |
| AGRO | TRA | <i>Agropyron trachycaulum</i> | Slender wheatgrass |
| ALNU | CRI | <i>Alnus crispa</i> | Green alder |
| ALNU | TEN | <i>Alnus tenuifolia</i> | River alder |
| AMEL | ALN | <i>Amelanchier alnifolia</i> | Saskatoon-berry |
| ANTE | NEG | <i>Antennaria neglecta</i> | Pussy-toes |
| ARAL | NUD | <i>Aralia nudicaulis</i> | Wild sarsaparilla |
| ARCT | UVA | <i>Arctostaphylos uva-ursi</i> | Common bearberry |
| ASTE | PUN | <i>Aster puniceus</i> | Purple-stemmed aster |
| AULA | PAL | <i>Aulacomnium palustre</i> | Tufted-moss |
| BETU | GLA | <i>Betula glandulosa</i> | Dwarf birch |
| BETU | OCC | <i>Betula occidentalis</i> | Water birch |
| BETU | PAP | <i>Betula papyrifera</i> | Paper birch |
| BETU | PUM | <i>Betula pumila</i> | Swamp birch |
| BRAC | CAM | <i>Brachythecium campestre</i> | |
| BRAC | SAL | <i>Brachythecium salebrosium</i> | |
| BRAC | STA | <i>Brachythecium starkii</i> | |
| BROM | CIL | <i>Bromus ciliolatus</i> | Downy brome |
| BRYO | FUS | <i>Bromus fuscescens</i> | |
| BRYU | PSE | <i>Bryum pseudoloquetrum</i> | |
| CALA | CAN | <i>Calamagrostis canadensis</i> | Marsh reed grass |
| CALL | GIG | <i>Calligera giganteum</i> | |
| CALT | PAL | <i>Caltha palustris</i> | Marsh marigold |
| CALY | SPH | <i>Calypogeia sphagnicola</i> | |
| CARE | AQU | <i>Carex aquatilis</i> | Water sedge |
| CARE | BRU | <i>Carex brunnescens</i> | Brownish sedge |
| CARE | DIS | <i>Carex disperma</i> | Two-seeded sedge |
| CARE | PRA | <i>Carex prairea</i> | Prairie sedge |
| CETR | HAL | <i>Cetraria haleii</i> | |
| CETR | PIN | <i>Cetraria pinastri</i> | |
| CLAD | GRA | <i>Cladina gracilis</i> | Reindeer lichen |
| CLAD | MIT | <i>Cladina mitis</i> | Reindeer lichen |
| CLAD | RAN | <i>Cladina rangiferina</i> | Reindeer lichen |
| CLAD | CLO | <i>Cladonia cristadella</i> | |
| CLAD | CRI | <i>Cladonia clorophaea</i> | |
| CLAD | DEF | <i>Cladonia deformis</i> | |
| CLIM | DEN | <i>Climacium dendroides</i> | |
| CONU | CAN | <i>Cornus canadensis</i> | Bunchberry |
| CORY | COR | <i>Corylus cornuta</i> | Beaked hazelnut |
| CRAT | FIL | <i>Cratoneuron filicinum</i> | |
| DICR | POL | <i>Dicranum polysetum</i> | |
| DISP | TRA | <i>Disporum trachycarpum</i> | Fairy bells |

| <u>Code Name</u> | <u>Latin Name</u> | <u>Common Name</u> |
|------------------|----------------------------------|--------------------------|
| DREP ADU | <i>Drepanocladus aduncus</i> | |
| DREP POL | <i>Disporum polycarpus</i> | |
| ELYM INN | <i>Elymus innovatus</i> | Hairy wild rye |
| EPIL PAL | <i>Epilobium palustre</i> | Marsh willow herb |
| EPIL ANG | <i>Epilobium angustifolium</i> | Fireweed |
| EQUI ARV | <i>Equisetum arvense</i> | Common horsetail |
| EQUI FLU | <i>Equisetum fluviale</i> | Swamp horsetail |
| EQUI PAL | <i>Equisetum palustre</i> | Marsh horsetail |
| EQUI PRA | <i>Equisetum pratense</i> | Meadow horsetail |
| EQUI SYL | <i>Equisetum sylvaticum</i> | Woodland horsetail |
| EURH PUL | <i>Eurhynchium pulchellum</i> | |
| EVER MES | <i>Evernia mesomorpha</i> | |
| FRAG VIR | <i>Fragaria virginiana</i> | Wild strawberry |
| GALI BOR | <i>Galium boreale</i> | Northern bedstraw |
| GALI LAB | <i>Galium labradoricum</i> | Bedstraw |
| GALI TRI | <i>Galium triflorum</i> | Sweet-scented bedstraw |
| GEOC LIV | <i>Geocavlon lividum</i> | Northern toadflax |
| GEUM ALL | <i>Geum allepicum</i> | Yellow avens |
| HAPL MIC | <i>Haplocladium microphyllum</i> | |
| HELO BLA | <i>Helodium blandowii</i> | |
| HERA LAN | <i>Heracleum lanatum</i> | Cow parsnip |
| HYLO SPL | <i>Hylocomium splendens</i> | Stair-step feathermoss |
| HYPO PHY | <i>Hypogymnia physodes</i> | |
| HYPN PRA | <i>Hypnum pratense</i> | |
| LARI LAR | <i>Larix laricina</i> | Tamarack |
| LATH OCH | <i>Lathyrus ochroleucus</i> | Cream-colored vetch |
| LEDU GRO | <i>Ledum groenlandicum</i> | Labrador tea |
| LILI PHI | <i>Lilium philadelphicum</i> | Western wood lily |
| LINN BOR | <i>Linnaea borealis</i> | Twinflower |
| LONI INV | <i>Lonicera involucrata</i> | Bracted honeysuckle |
| LYSI THY | <i>Lysimachia thyrsoflora</i> | Tufted loose strife |
| MAIA CAN | <i>Maianthemum canadense</i> | Wild lily-of-the-valley |
| MENY TRI | <i>Menyanthes trifoliata</i> | Buckbean |
| MERT PAN | <i>Mertensia paniculata</i> | Tall mertensia |
| MITE NUD | <i>Mitella nuda</i> | Bishop's cap |
| MYLI ANO | <i>Mylia anomala</i> | |
| ORTH SEC | <i>Orthelia secunda</i> | One-sided wintergreen |
| ORTH OBT | <i>Orthotrichum obtusifolium</i> | |
| ORYZ PUN | <i>Oryzopsis pungens</i> | Rice grass |
| OXYC MIC | <i>Oxycoccus microcarpus</i> | Small bog cranberry |
| PARM FLA | <i>Parmelia flaventior</i> | |
| PARM SUL | <i>Parmelia sulcata</i> | |
| PARN FIM | <i>Parnassia fimbriata</i> | Grass-of-Parnassus |
| PELT APT | <i>Peltigera apthosa</i> | |
| PELT CAN | <i>Peltigera canina</i> | Dog lichen |
| PELT HOR | <i>Peltigera horizontalis</i> | |
| PELT POL | <i>Peltigera polydactyla</i> | |
| PETA PAL | <i>Petasittes palmatus</i> | Palmate leaved coltsfoot |
| PICE GAL | <i>Picea glauca</i> | White spruce |
| PICE MAR | <i>Picea mariana</i> | Black spruce |

| <u>Code Name</u> | <u>Latin Name</u> | <u>Common Name</u> |
|------------------|------------------------------------|--------------------------------|
| PINU BAN | <i>Pinus banksiana</i> | Jack pine |
| PLAG COS | <i>Plagiomnium cuspidatum</i> | |
| PLAG DRU | <i>Plagiomnium drummondii</i> | |
| PLAG ELL | <i>Plagiomnium ellipticum</i> | |
| PLAG MED | <i>Plagiomnium medium</i> | |
| PLEU SCH | <i>Pleurozium schreberi</i> | Schreber's moss |
| POHL NUT | <i>Pohlia nutans</i> | Copper wire moss |
| POLY JUN | <i>Polytrichum juniperinum</i> | Hair cap moss |
| POLY STR | <i>Polytrichum strictum</i> | |
| POPU BAL | <i>Populus balsamifera</i> | Balsam poplar |
| POPU TRE | <i>Populus tremuloides</i> | Trembling aspen |
| POTE PAL | <i>Potentilla palustris</i> | Marsh cinquefoil |
| PRUN VIR | <i>Prunus virginiana</i> | Choke cherry |
| PTIL CRI | <i>Ptilidium crista-castrensis</i> | Knight's plume |
| PYLA POL | <i>Pylasiella polyantha</i> | |
| PYRO ASA | <i>Pyrola asarifolia</i> | Common pink wintergreen |
| RAMA FAR | <i>Ramalina farinacea</i> | |
| RAMA MIN | <i>Ramalina miniscula</i> | |
| RAMA POL | <i>Ramalina pollinaria</i> | |
| RIBE LAC | <i>Ribes lacustre</i> | Bristly black currant |
| RIBE OXY | <i>Ribes oxycanthoides</i> | Wild gooseberry |
| RIBE TRI | <i>Ribes triste</i> | Wild red currant |
| ROSA ACI | <i>Rosa acicularis</i> | Prickly rose |
| RUBU IDA | <i>Rubus idaeus</i> | Wild red raspberry |
| RUBU PUB | <i>Rubus pubescens</i> | Dewberry |
| RUME BRI | <i>Rumex britannica</i> | Water dock |
| RUME OCC | <i>Rumex occidentalis</i> | Western dock |
| SALI BEB | <i>Salix bebbiana</i> | Beaked willow |
| SALI ATH | <i>Salix athabascensis</i> | Athabasca willow |
| SALI CAN | <i>Salix candida</i> | Hoary willow |
| SALI MAC | <i>Salix maccalliana</i> | Velvet-fruited willow |
| SALI MYR | <i>Salix myrtilifolia</i> | Myrtle-leaved willow |
| SALI PLA | <i>Salix planifolia</i> | Flat-leaved willow |
| SALI SER | <i>Salix serissima</i> | Autumn willow |
| SANI MAR | <i>Sanicula marilandica</i> | Snake root |
| SCHI PUR | <i>Schizachne purpurescens</i> | Purple oat grass |
| SHEP CAN | <i>Shepherdia canadensis</i> | Buffalo-berry |
| SMIL TRI | <i>Smilacina trifolia</i> | Three-leaved Solomon's seal |
| SOLI CAN | <i>Solidago canadensis</i> | Graceful goldenrod |
| SPHA FUS | <i>Sphagnum fuscum</i> | |
| STEL LON | <i>Stellaria longifolia</i> | Long-leaved stichwort |
| STRE AMP | <i>Streptococcus amplexiformis</i> | Twisted stalk |
| SYMP ALB | <i>Symphoricarpos alba</i> | Snowberry |
| THAL VEN | <i>Thalictrum venulosum</i> | Veiny meadow rue |
| THUI REC | <i>Thuidrum recognitum</i> | |
| TOME NIT | <i>Tomenthypnum nitens</i> | Golden moss |
| TRIE BOR | <i>Trientalis borealis</i> | Star-flower |
| URTI DIO | <i>Urtica dioica</i> | Stinging nettle |
| USNE ALP | <i>Usnea alpina</i> | Old man's beard |

| <u>Code Name</u> | <u>Latin Name</u> | <u>Common Name</u> |
|------------------|-------------------------------|-----------------------|
| USNE CAV | Usnea cavernosa | Old man's beard |
| USNE HIR | Usnea hirta | Old man's beard |
| USNE SOR | Usnea soledifferad | Old man's beard |
| USNE SUB | Usnea subfloridana | Old man's beard |
| VACC MYR | Vaccinium myrtilloides | Blueberry |
| VACC VIT | Vaccinium vitis-idaea | Bog cranberry |
| VALE DIO | Valeriana dioica | Northern valerian |
| VIBU EDU | Viburnum edule | Low-bush cranberry |
| VICE AME | Vicia americana | Wild vetch |
| VIOL REN | Viola renifolia | Early blue violet |
| VIOL RUG | Viola rugulosa | Western Canada violet |
| XANT RAM | Xanthoria ramulosa | |

SPECIAL LAKELAND AREA SPECIES LIST

| <u>Code Name</u> | <u>Latin Name</u> | <u>Common Name</u> |
|------------------|----------------------------------|------------------------|
| ABIE BAL | <i>Abies balsamea</i> | Balsam fir |
| ACHI MIL | <i>Achillia millefolium</i> | Common yarrow |
| ACHI SIB | <i>Achillia siberica</i> | Many-flowered yarrow |
| ACTA RUB | <i>Actaea rubra</i> | Red baneberry |
| AGRO SCA | <i>Agrostis scabra</i> | Tickle grass |
| ALNU CRI | <i>Alnus crispa</i> | Green alder |
| ALNU TEN | <i>Alnus tenuifolia</i> | River alder |
| AMBL SER | <i>Amblystegium serpens</i> | |
| AMEL ALN | <i>Amelanchier alnifolia</i> | Saskatoon-berry |
| ANDR POL | <i>Andromedia polifolia</i> | Bog rosemary |
| ANEM PAR | <i>Anemone parviflora</i> | |
| ANEM PAT | <i>Anemone patens</i> | Prairie crocus |
| ANTE NEG | <i>Antennaria neglecta</i> | Pussy-toes |
| ARAL NUD | <i>Aralia nudicaulis</i> | Wild sarsaparilla |
| AREN LAT | <i>Arenaria lateriflora</i> | Sandwort |
| ASTE CIL | <i>Aster ciliolatus</i> | Lindley's aster |
| ASTE CON | <i>Aster conspicuous</i> | Showy aster |
| ASTE NES | <i>Aster hesperius</i> | Western willow aster |
| ASTE JUN | <i>Aster junciformis</i> | |
| ASTR FRI | <i>Astragalus frigidus</i> | Milk vetch |
| ASTR OCC | <i>Astragalus occidentalis</i> | Milk vetch |
| AULA PAL | <i>Aulacomnium palustre</i> | |
| BETU GLA | <i>Betula glandulosa</i> | Dwarf birch |
| BETU PAP | <i>Betula papyrifera</i> | Paper birch |
| BETU PUM | <i>Betula pumila</i> | Swamp birch |
| BRAC SAL | <i>Brachythecium salebrosium</i> | |
| BROM PUM | <i>Bromus pumpellianus</i> | Northern awnless brome |
| BRYU PSE | <i>Bryum pseudoloquetrum</i> | |
| CALA CAN | <i>Calamagrostis canadensis</i> | Marsh reed grass |
| CALA INE | <i>Calamagrostis inexpansa</i> | Northern reed grass |
| CALL GIG | <i>Calligera giganteum</i> | |
| CALL TRI | <i>Calliargon trifarium</i> | |
| CALT PAL | <i>Caltha palustris</i> | Marsh marigold |
| CAMP ROT | <i>Campanula rotundifolia</i> | Harebell |
| CAMP STE | <i>Campylum stellatum</i> | |
| CARE AQU | <i>Carex aquatilis</i> | Water sedge |
| CARE ATH | <i>Carex atherodes</i> | Sedge |
| CARE BRU | <i>Carex brunnescens</i> | Sedge |
| CARE CAP | <i>Carex capillaris</i> | Sedge |
| CARE CHO | <i>Carex chordorrhiza</i> | Sedge |
| CARE CON | <i>Carex concinna</i> | Sedge |
| CARE DEW | <i>Carex deweyana</i> | Sedge |
| CARE DIS | <i>Carex disperma</i> | Sedge |
| CARE GYN | <i>Carex gynocrates</i> | Sedge |
| CARE INT | <i>Carex interior</i> | Sedge |
| CARE LIM | <i>Carex limosa</i> | Sedge |
| CARE PAU | <i>Carex paupercula</i> | Sedge |

| <u>Code Name</u> | <u>Latin Name</u> | <u>Common Name</u> |
|------------------|---------------------------------|---------------------|
| CARE PEC | <i>Carex peckii</i> | Sedge |
| CARE PRA | <i>Carex prairea</i> | Sedge |
| CARE RIC | <i>Carex richardsonii</i> | Sedge |
| CARE ROS | <i>Carex rostrata</i> | Sedge |
| CARE TEN | <i>Carex tenuiflora</i> | Sedge |
| CARE VAG | <i>Carex vaginata</i> | Sedge |
| CHRY IOW | <i>Chrysosplenium iowense</i> | Golden saxifrage |
| CICU BUL | <i>Cicuta bulbifera</i> | Water hemlock |
| CICU DOU | <i>Cicuta douglasii</i> | Water hemlock |
| CIRS ARV | <i>Cirsium arvense</i> | Canada thistle |
| CLAD CEN | <i>Cladonia cenotea</i> | |
| CLAD COC | <i>Cladonia coccifera</i> | |
| CLAD CON | <i>Cladonia coniocraea</i> | |
| CLAD COR | <i>Cladonia cornuta</i> | |
| CLAD CRI | <i>Cladonia clorophaea</i> | |
| CLAD DEF | <i>Cladonia deformis</i> | |
| CLAD FIM | <i>Cladonia fimbriata</i> | |
| CLAD FUR | <i>Cladonia furcata</i> | |
| CLAD GRA | <i>Cladonia gracillis</i> | |
| CLAD MIT | <i>Cladonia mitis</i> | Reindeer lichen |
| CLAD MUL | <i>Cladonia multiformis</i> | |
| CLAD PYS | <i>Cladonia physidata</i> | |
| CLAD UNC | <i>Cladonia uncialis</i> | |
| CLAD VER | <i>Cladonia verticillata</i> | |
| CLIM DEN | <i>Climacium dendroides</i> | |
| COMA PAL | <i>Comandra pallida</i> | Bastard toad-flax |
| CORA TRI | <i>Corallorhiza trifida</i> | Pale coral-root |
| CORN CAN | <i>Cornus canadensis</i> | Bunchberry |
| CORN STO | <i>Cornus stolonifera</i> | Dogwood |
| CORY COR | <i>Corylus cornuta</i> | Beaked hazelnut |
| DESC CAE | <i>Deschampsia caespitosa</i> | Hair grass |
| DICR FRA | <i>Dicranum fragilifolium</i> | |
| DICR UND | <i>Dicranum undulatum</i> | |
| DISP TRA | <i>Disporum trachycarpum</i> | Fairy-bells |
| DREP ADU | <i>Drepanocladus aduncus</i> | |
| DREP REV | <i>Drepanocladus revolvens</i> | |
| DREP UNC | <i>Drepanocladus uncinatus</i> | |
| DREP VER | <i>Drepanocladus vernicosus</i> | |
| DROS VOT | <i>Drosera rotundifolia</i> | Round-leaved sundew |
| ELYM INN | <i>Elymus innovatus</i> | Hairy wild rye |
| EPIL ANG | <i>Epilobium angustifolium</i> | Fireweed |
| EPIL GLA | <i>Epilobium glandulosa</i> | Willow-herb |
| EQUI ARV | <i>Equisetum arvense</i> | Common horsetail |
| EQUI FLU | <i>Equisetum fluvitale</i> | Swamp horsetail |
| EQUI SCI | <i>Equisetum scirpoides</i> | Horsetail |
| EQUI SYL | <i>Equisetum sylvaticum</i> | Woodland horsetail |
| ERIG GLA | <i>Erigeron alabellus</i> | Fleabane |
| ERIG PHI | <i>Erigeron philadelphicus</i> | Fleabane |
| ERIO CHA | <i>Eriophorum chamissonis</i> | Cotton grass |

| <u>Code Name</u> | <u>Latin Name</u> | <u>Common Name</u> |
|------------------|------------------------------------|-------------------------|
| ERIO VIR | <i>Eriophorum viridi-carinatum</i> | Cotton grass |
| EURH PUL | <i>Eurhynchium pulchellum</i> | |
| FEST SAX | <i>Festuca saximontana</i> | Fescue |
| FRAG VIR | <i>Fragaria virginiana</i> | Wild strawberry |
| GALI BOR | <i>Galium boreale</i> | Northern bedstraw |
| GALI LAB | <i>Galium labradoricum</i> | Bedstraw |
| GALI TRI | <i>Galium triflorum</i> | Sweet-scented bedstraw |
| GENT AMA | <i>Gentianella amarella</i> | Felwort |
| GEOC LIV | <i>Geocqulon lividum</i> | Northern comandra |
| GEUM ALL | <i>Geum allepicum</i> | Yellow avens |
| GEUM MAL | <i>Geum macrophyllum</i> | Yellow avens |
| GOOD REP | <i>Goodyera repens</i> | Rattlesnake plantain |
| HABE HYP | <i>Habenaria hyperborea</i> | Northern green orchid |
| HALE DEF | <i>Halena deflexa</i> | Spurred gentian |
| HAPL MIC | <i>Haplocladium microphyllum</i> | |
| HEDY ALP | <i>Hedysarum alpinum</i> | |
| HERA LAN | <i>Heracleum lanatum</i> | Cow parsnip |
| HIER CAN | <i>Hieracium canadense</i> | Canada hawkweed |
| HYLO SPL | <i>Hylocomium splendens</i> | Stair-step feathermoss |
| HYPO PHY | <i>Hypogymnia physodes</i> | |
| HYPN PRA | <i>Hypnum pratense</i> | |
| JUNC BAL | <i>Juncus balticus</i> | Wire rush |
| KALM POL | <i>Kalmia polifolia</i> | Mountain laurel |
| LARI LAR | <i>Larix laricina</i> | Tamarack |
| LATH OCH | <i>Lathyrus ochroleucus</i> | Cream-colored vetch |
| LESC RAD | <i>Lescurae radicata</i> | Cream-colored vetchling |
| LEDU GRO | <i>Ledum groenlandicum</i> | Labrador tea |
| LILI PHI | <i>Lilium philadelphicum</i> | Western wood lily |
| LINN BOR | <i>Linnaea borealis</i> | Twinflower |
| LONI DIO | <i>Lonicera dioica</i> | Twining honeysuckle |
| LONI INV | <i>Lonicera involucrata</i> | Bracted honeysuckle |
| LONI VIL | <i>Lonicera villosa</i> | Fly honeysuckle |
| LYCO ANN | <i>Lycopodium annotinum</i> | Stiff club-moss |
| LYCO COM | <i>Lycopodium complanatum</i> | Ground cedar |
| LYCO OBS | <i>Lycopodium obscurum</i> | Ground pine |
| MAIA CAN | <i>Maianthemum canadense</i> | Wild lily-of-the-valley |
| MEES TRI | <i>Meesia triquetra</i> | |
| MENT ARV | <i>Mentha arvensis</i> | Wild mint |
| MENV TRI | <i>Menyanthes trifoliata</i> | Buck bean |
| MERT PAN | <i>Mertensia paniculata</i> | Tall mertensia |
| MITE NUD | <i>Mitella nuda</i> | Bishop's cap |
| MUHL GLO | <i>Muhlenbergia glomerata</i> | Bog muhly |
| ONCO WAH | <i>Oncophorus wahlengergii</i> | |
| ORCH ROT | <i>Orchis rotundifolia</i> | Round-leaved orchid |
| ORYZ ASP | <i>Oryzopsis asperifolia</i> | Rice grass |
| ORYZ PUN | <i>Oryzopsis pungens</i> | Rice grass |
| OSMO DEP | <i>Osmorhiza depauperata</i> | Sweet cicely |
| OXYC MIC | <i>Oxycoccus microcarpus</i> | Small bog cranberry |
| PARN DAL | <i>Parnassia palustris</i> | Grass-of-parnassus |
| PELT APH | <i>Peltigera apthosa</i> | |

| <u>Code Name</u> | <u>Latin Name</u> | <u>Common Name</u> |
|------------------|------------------------------------|--------------------------|
| PELT CAN | <i>Peltigera canina</i> | Dog lichen |
| PELT MAL | <i>Peltigera malacea</i> | |
| PELT POL | <i>Peltigera polydactyla</i> | |
| PENS ALB | <i>Penstemon albidus</i> | White beard-tongue |
| PETA PAL | <i>Petasites palmatus</i> | Palmate leaved coltsfoot |
| PETA SAG | <i>Petasites sagittatus</i> | Arrow-leaved coltsfoot |
| PHAC FRA | <i>Phacelia franklinii</i> | Scorpion weed |
| PICE GAL | <i>Picea glauca</i> | White spruce |
| PICE MAR | <i>Picea mariana</i> | Black spruce |
| PINU BAN | <i>Pinus banksiana</i> | Jack pine |
| PLAG CUS | <i>Plagiomnium cuspidatum</i> | |
| PLAG DRU | <i>Plagiomnium drummondii</i> | |
| PLAG ELL | <i>Plagiomnium ellipticum</i> | |
| PLEU SCH | <i>Pleurozium schreberi</i> | Schreber's moss |
| POA PAL | <i>Poa palustris</i> | Fowl bluegrass |
| POHL CRU | <i>Pohlia cruda</i> | |
| POLY AMP | <i>Polygonum amphibium</i> | Water smartweed |
| POLY JUN | <i>Polytrichum juniperinum</i> | Hair cap moss |
| POLY LAP | <i>Polygonum lapathifolium</i> | Smartweed |
| POLY PAU | <i>Polygala pauciflora</i> | Milkwort |
| POLY STR | <i>Polytrichum strictum</i> | |
| POPU BAL | <i>Populus balsamifera</i> | Balsam poplar |
| POPU TRE | <i>Populus tremuloides</i> | Trembling aspen |
| POTE PAL | <i>Potentilla palustris</i> | Marsh cinquefoil |
| POTE RIV | <i>Potentilla rivalis</i> | Cinquefoil |
| POTE TRI | <i>Potentilla tridentata</i> | Three-toothed cinquefoil |
| PRUN PEN | <i>Prunus pensylvanica</i> | Pin cherry |
| PRUN VIR | <i>Prunus virginiana</i> | Choke cherry |
| PTIL CRI | <i>Ptilidium crista-castrensis</i> | Knight's plume |
| PTIL PUL | <i>Ptilidium pulcherrimum</i> | |
| PYLA POL | <i>Pyasiella polyantha</i> | |
| PYRO ASA | <i>Pyrola asarifolia</i> | Common pink wintergreen |
| PYRO SEC | <i>Pyrola secunda</i> | One-sided wintergreen |
| RHAM ALN | <i>Rhamnus alnifolia</i> | Buckthorn |
| RHIZ PSE | <i>Rhizomnium pseudopunctatum</i> | |
| RIBE AME | <i>Ribes americanum</i> | Wild black currant |
| RIBE GLA | <i>Ribes glandulosum</i> | Skunk current |
| RIBE HIR | <i>Ribes hirtellum</i> | Wild gooseberry |
| RIBE LAC | <i>Ribes lacustre</i> | Bristly black currant |
| RIBE OXY | <i>Ribes oxycanthoides</i> | Wild gooseberry |
| RIBE TRI | <i>Ribes triste</i> | Wild red currant |
| RORR ISL | <i>Rorippa islandica</i> | Yellow cress |
| ROSA ACI | <i>Rosa acicularis</i> | Prickly rose |
| RUBU ACA | <i>Rubus acaulis</i> | Dwarf raspberry |
| RUBA CHA | <i>Rubus chamaemorus</i> | Cloudberry |
| RUBU PUB | <i>Rubus pubescens</i> | Dewberry |
| RUBU STR | <i>Rubus strigosus</i> | Wild red raspberry |
| RUME OCC | <i>Rumex occidentalis</i> | Western dock |
| SALI BEB | <i>Salix bebbiana</i> | Beaked willow |
| SALI CAN | <i>Salix candida</i> | Hoary willow |

| <u>Code</u> | <u>Name</u> | <u>Latin Name</u> | <u>Common Name</u> |
|-------------|-------------|----------------------------------|-------------------------------|
| SALI | LAS | <i>Salix lasiandra</i> | Willow |
| SALI | MYR | <i>Salix myrtillofolia</i> | Willow |
| SALI | PED | <i>Salix pedicellaris</i> | Glaucous bog willow |
| SALI | PLA | <i>Salix planifolia</i> | Willow |
| SANI | MAR | <i>Sanicula marilandica</i> | Snake root |
| SARR | PUR | <i>Sarracenia purpurea</i> | Pitcher-plant |
| SCHI | PUR | <i>Schizachne purpurea</i> | Purple oat grass |
| SCOR | TUR | <i>Scorpidium trugescens</i> | |
| SCUT | GAL | <i>Scutellaria gallericulata</i> | Common skullcap |
| SHEP | CAN | <i>Shepherdia canadensis</i> | Buffalo-berry |
| SMIL | STE | <i>Smilacina stellata</i> | Stair-flowered Solomon's-seal |
| SMIL | TRI | <i>Smilacina trifolia</i> | Three-leaved Solomon's-seal |
| SOLI | DEC | <i>Solidago decumbens</i> | Goldenrod |
| SOLI | GIG | <i>Solidago gigantea</i> | Goldenrod |
| SPHA | ANG | <i>Sphagnum angustifolium</i> | Sphagnum moss |
| SPHA | CUS | <i>Sphagnum cuspidatum</i> | Sphagnum moss |
| SPHA | NEM | <i>Sphagnum nemoreum</i> | Sphagnum moss |
| SPHA | RUS | <i>Sphagnum russowii</i> | Sphagnum moss |
| SPHA | WAR | <i>Sphagnum warnstorffii</i> | Sphagnum moss |
| SPIR | ROM | <i>Spiranthes romanzoffiana</i> | Laddies'-tresses |
| STEL | LON | <i>Stellaria longipes</i> | Long-stalked chickweed |
| STEL | MED | <i>Stellaria media</i> | Common chickweed |
| SYMP | ALB | <i>Symphoricarpos alba</i> | Snowberry |
| TARA | OFF | <i>Taraxacum officinale</i> | Dandelion |
| THAL | VEN | <i>Thalictrum venulosum</i> | Veiny meadow rue |
| TOFI | GLU | <i>Tofieldia glutinosa</i> | Flase asphodel |
| TOME | NIT | <i>Tomenthypnum nitens</i> | |
| TRIE | BOR | <i>Trientalis borealis</i> | Star-flower |
| TRIG | MAR | <i>Triglochin maritima</i> | Arrow-grass |
| TROL | ALB | <i>Trollius albiflorus</i> | Globe-flower |
| VACC | CAE | <i>Vaccinium caespitosum</i> | Dwarf bilberry |
| VACC | MYR | <i>Vaccinium myrtilloides</i> | Blueberry |
| VACC | VIT | <i>Vaccinium vitis-idaea</i> | Bog cranberry |
| VALE | SEP | <i>Valeriana septentrionalis</i> | Valerian |
| VIBU | EDU | <i>Viburnum edule</i> | Low-bush cranberry |
| VICI | AME | <i>Vicia americana</i> | Wild vetch |
| VIOL | ADU | <i>Viola adunca</i> | Early blue violet |
| VIOL | RUG | <i>Viola rugulosa</i> | Western Canada violet |
| ZIZI | APT | <i>Zizia aptera</i> | Meadow parsnip |

KLINKA-PHELPS VEGETATION PROGRAM

This is a FORTRAN program written by Susan Phelps to produce vegetation and summary tables from a file of releve data. It was developed for the Research Branch, B.C. Ministry of Forests and revised for the Alberta Forest Service. The explanation of the tables generated by this program has been split into two parts, the vegetation tables and the summary tables.

Vegetation Tables

The vegetation tables summarize and average the plots within each forage type. This part of the program essentially collects and prints the percent cover and vigor for each species in each layer of every plot. An average value for percent cover (Mean Cover) and a percent frequency of occurrence (Presence) is given for each species, layer by layer, within each forage type. Labelled excerpts from a vegetation table are as follows:

| LEVEL | ZONE | ASSC | TYPE | |
|-------------|-------------------------------|-----------------|------|---|
| ECOSYM UNIT | BDM | P- | 2 | PINE/BEARBERRY/LICHEN |
| | ecoregion and subregion | mapping unit | | association which describes the forage type |

Ecoregion : Derived from Ecoregions of Alberta (Strong and Leggat).

Mapping Unit: As per map

Association : Arrived at using a minimum of 80% presence and 10% mean cover.

| | | | | | | | | | |
|----------------------------|---------------|--|------|------|------|------|------|------|----|
| | | plot numbers in the forage type | | | | | | | |
| | | <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> | | | | | | | |
| Plot Number | Average Value | 4279 | 4276 | 4277 | 7418 | 7450 | 7463 | 7469 | |
| Number of Species Per Plot | | 24.9 | 29 | 23 | 21 | 21 | 25 | 24 | 31 |
| | | <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> | | | | | | | |
| | | values for each type | | | | | | | |
| | | average value for the type | | | | | | | |

| | | | | | | | | | | | | | | | | | |
|---|----------|------------------|-----|------------|----|--------------------------|----|----------------------------|----|-------------------|----|-------|----|-------|----|-------|----|
| | | Percent Presence | | Mean Cover | | Percent Cover (measured) | | Sociability (not measured) | | Vigour (measured) | | | | | | | |
| SPECIES | | %P | MC | %C | SV | %C | SV | %C | SV | %C | SV | %C | SV | %C | SV | %C | SV |
| AI LAYER | | ----- | | ----- | | ----- | | ----- | | ----- | | ----- | | ----- | | ----- | |
| 1 | PINU BAN | 85.7 | 6.0 | | | 10 | 2 | 10 | 2 | 5 | 2 | 5 | 2 | 5 | 2 | 7 | 2 |
| 2 | PICE GLA | 14.3 | 0.3 | | | | | | | | | 2 | 2 | | | | |
| <div> <div>species within the layer (code)</div> </div> | | | | | | | | | | | | | | | | | |

- Layers: A₁ - dominant trees
- A₂ - main canopy
- A₃ - suppressed and intermediate trees
- B₁ - tall shrubs
- B₂ - medium shrubs
- C - forbs
- D - grasses
- M - mosses
- L - lichens
- E - epiphytes

%P: Percent Presence

- : ranges from greater than 0 to a maximum of 100 (present in all plots).
- = $\frac{\text{no. of plots that species is present in}}{\text{total no. of plots for the type}} \times 100$.
- = percent frequency

MC: Mean Cover

- : ranges from greater than 0 to a maximum of 100 (total cover in all plots).
- = total cover values for each plot - total no. of plots for the type.

%C: Percent Cover

- : ranges from 0 to 100 (not present in plot to total cover).
- : measured value

S: Sociability

- : not measured

V: Vigour

- : 0 = dead
- 1 = poor
- 2 = fair
- 3 = good
- 4 = excellent

Summary Tables

These tables constitute a comparison between the forage types determined by the vegetation tables. This part of the program takes the the Mean Cover (MC) and Percent Presence (%P) for each type and lists them species by species alphabetically. Mean Cover has been renamed Mean Species Significance and the Percent Presence value has been

converted to a Presence Class. Excerpts are as follows:

| | | | | | |
|---|------------|------------|-------------|-------------|-------------|
| <div> <div>ecoregion and subregion</div> <div></div> </div> | | | | | |
| ECOSYSTEMATIC UNITS | 8DM p 1 | 8DM p 2 | 8DM p 3a | 8DM p 3b | 8DM A 1a |

mapping
units

Ecoregion : the same as the vegetation tables

Mapping Unit: the same as the vegetation tables

| | | | | | |
|--|---|--|-------|--------|--|
| <div>species (code)</div> <div></div> | <div>presence class</div> <div></div> | <div>mean species significance</div> <div></div> | | | |
| ABIE BAL ACHI MIL ACHI SIB ACTA RUB | I 0.1 | III 0.4 | I 0.2 | IV 1.4 | |

Species : all species present in the study area listed alphabetically by computer code.

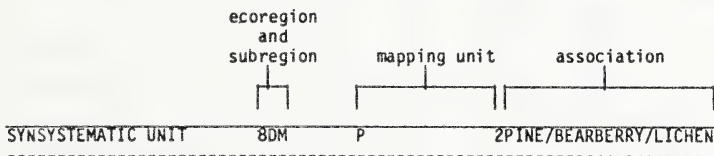
Presence Class: percent presence

Mean Species Significance: calculated using Percent Presence as follows:

| <u>Percent Presence</u> | <u>Mean Species Significance</u> |
|--------------------------|----------------------------------|
| Not present in type | I |
| Greater than 0% to 20% | II |
| Greater than 20% to 40% | III - significant species |
| Greater than 40% to 60% | IV |
| Greater than 60% to 80% | V - major and minor species |
| Greater than 80% to 100% | |

ENVIRONMENTAL SITE PROGRAM

This program presents the collected site data plus other parameters determined to be useful in tabular form. Each environmental site table corresponds to a forage type and vegetation table. Excerpts are as follows:



Mapping Unit - same as previously defined

Association - same as previously defined

Elevation (m) - a value of 500-600 metres

Slope Gradient - ranges from 0%

Aspect ranges from 1% to 359%, 999 = flat area/crest of hill

| | | |
|--------------------|---------------------------|----------------------|
| | mean value | value per plot |
| | ┌───┐ | ┌───┐ |
| Elevation (m) | 600.0 | 600 |
| Slope Gradient (%) | 2.3 | 001 |
| Aspect | ┌───┐ | 060 |
| | mean not applicable | |

The data to follows includes environment/soils data:

| Environment/Soils: | | | | | | | |
|-------------------------------|--|------|-----|----|-----|----|-----|
| Ecological Moisture Regime | | | SHD | HD | SHD | HD | SHD |
| Nutrient Regime | | | PM | | | | |
| Overlying Material | | | Ob | 0 | 0 | 0 | 0 |
| Underlying Material | | | | | | | |
| Erosion/Deposition | | | | | | | |
| Soil Subgroup | | | TY | HU | HU | HU | HU |
| Soil Great Group | | | F | M | M | M | M |
| Soil Drainage | | | VP | VP | VP | VP | VP |
| Solum Thickness (cm) | | 10.0 | 10 | | | | |
| Type & Depth to Restrict (cm) | | | | | | | |
| Thickness LFH (cm) | | 10.0 | 10 | | | | |
| pH-LFH | | 0.0 | | | | | |
| -A | | 0.0 | | | | | |
| -B | | 0.0 | | | | | |
| -C | | 0.0 | | | | | |
| Texture-A/1 | | | | | | | |
| -B/2 | | | | F | F | F | F |
| -C/3 | | | | | | | |
| Coarse Fragments-B(%) | | 0.0 | | | | | |
| Seepage (*) & Mottling (cm) | | | * | | | | |
| Rooting Depth (cm) | | 0.0 | | | | | |

Ecological Moisture Regime:

VX - very xeric
 X - xeric
 SX - subxeric
 SM - submesic
 M - mesic
 SHG - subhygric
 HG - hygric
 SHD - subhydryc
 HD - hydric

Nutrient Regime:

O - oligotrophic
 SM - submesotrophic
 M - mesotrophic
 PM - permesotrophic
 E - eutrophic

Overlying material texture
 Underlying material
 Soil subgroup
 Soil great group

from PLC Beaver Lake map

Soil Drainage

R - rapid
 W - well
 MW - moderately well
 I - imperfectly
 P - poorly
 VP - very poorly

The data to follow includes vegetation tables:

Vegetation:

| Association | | L2 | L2 | L2 | L2 | L2 |
|-------------------------------|------|----|------|------|------|------|
| Stand Age (yr) | 63.5 | | 50 | 77 | | |
| Canopy Height (m) | 11.7 | | | 12 | 12 | 11 |
| Mean Annual Increment | 0.0 | | | | | |
| Strata Coverage (%) - A | 2.0 | 4 | 0 | 3 | 2 | 1 |
| -B | 45.8 | 35 | 30 | 54 | 70 | 40 |
| -C | 15.8 | 15 | 2 | 55 | 3 | 4 |
| -G | 19.4 | 40 | 5 | 25 | 25 | 2 |
| -D | 83.2 | 80 | 98 | 80 | 60 | 98 |
| -L | 0.6 | 1 | 0 | 1 | 0 | 1 |
| Surface Subst (%) - Dead Wood | 2.4 | 0 | 10 | 0 | 1 | 1 |
| - Bedrock | 0.0 | 0 | 0 | 0 | 0 | 0 |
| - Stones | 0.0 | 0 | 0 | 0 | 0 | 0 |
| - Min. Soil | 0.0 | 0 | 0 | 0 | 0 | 0 |
| - Organic | 96.0 | 97 | 87 | 99 | 98 | 99 |
| - Open Water | 1.6 | 3 | 3 | 1 | 1 | 0 |
| Biomass (kg/ha) - Forbs | 14.5 | | 20.4 | 8.4 | 15.6 | 13.6 |
| - Graminoids | 23.2 | | 9.6 | 57.6 | 21.2 | 4.4 |
| - Browse | 11.0 | | 0 | 43.9 | 0 | 0 |

Association - as per map symbol

Stand age - measured in years

Canopy height - all layers (from mensuration tables)

Strata coverage (%) - plot data from these layers summary exceed 100% due to overlapping layers

Surface substrate (%) - sum should be 100% - may be rounding errors.

Biomass (kg/ha) - measured biomass values (Lakeland only).

MENSURATION PROGRAM

This program presents the collected mensuration data plus other parameters determined to be useful in tabular form. The tables are given in two parts: (1) a plot summary, and (2) association summary (corresponds with the vegetation data).

Plot Summary

Size (ha): .01, .02, .03, .04 - average of 30 tree requirement determines plot size.

Species: Sw - white spruce
Aw - aspen
SB - black spruce
PB - balsam poplar
PJ - jack pine
LT - tamarack
BW - paper birch

Sample Trees: number of trees (corresponding species) with ages taken.

BA/HA: basal area/hectare

Mean DBH: mean diameter at breast height

Mean Canopy Height: average height of all trees sampled

M3/Ha merch: cubic metres/ha merchantable

MAI total: mean annual increment

Mean HGT (dom + codom): mean height of A₁ and A₂ trees

S.I. M @ 50 years: site index

ENVIRONMENT - VEGETATION TABLES

EAST BEAVER LAKE AND LAKE LAND PLOTS

RESOURCE INVENTORY

EDMONTON, ALBERTA

10:55:12 APR 19, 1985

NO CODING ERRORS IN DATA SET

TOTAL NUMBER OF PLOTS IS 130

TOTAL NUMBER OF SPECIES IN EACH LAYER IS 7 11 19 18 46 121 37 51 23

| TITLE : | | P | 2 | PINE/BEARBERRY/LICHEN | | | | | | | | | | | | TABLE 1 | |
|------------------------------|--|-------|------|-----------------------|------|------|------|------|------|------|----|----|----|----|----|---------|--|
| PLOT NUMBER | | MEAN | 4B | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | |
| TOWNSHIP & RANGE | | | L002 | L002 | L045 | L046 | L063 | L093 | L106 | L112 | | | | | | | |
| MERIDIAN | | | 6612 | 64 | 9 | 64 | 9 | 64 | 9 | 64 | 8 | 64 | 8 | 64 | 8 | 64 | |
| MAPSHEET | | | W | 4 | W | 4 | W | 4 | W | 4 | W | 4 | W | 4 | W | 4 | |
| PHYSIOGRAPHIC SUBREGION | | | 73L | 73L | 73L | 73L | 73L | 73L | 73L | 73L | | | | | | | |
| GEOMORPHIC SYSTEM | | | 12 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | | | | | | | |
| ECOSECTION | | | | | | | | | | | | | | | | | |
| ELEVATION(MASL) | | 591.3 | 530 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | | | | | | | |
| SLOPE(%) | | 2.0 | 0 | 1 | 4 | 1 | 7 | 1 | 1 | 1 | | | | | | | |
| ASPECT(DEG) | | | | 66 | 236 | 161 | 60 | 133 | 275 | 124 | | | | | | | |
| ENVIRONMENT/SOILS : | | | | | | | | | | | | | | | | | |
| ECOLOGICAL MOISTURE REGIME | | | X | X | X | SX | X | X | SX | SX | | | | | | | |
| NUTRIENT REGIME | | | SM | GF | GF | GF | GF | GF | GF | GF | | | | | | | |
| OVERLYING MATERIAL | | | M | E | E | E | E | E | E | E | | | | | | | |
| UNDERLYING MATERIAL | | | E | E | E | E | E | E | E | E | | | | | | | |
| EROSION/DEPOSITION | | | DYB | EB | EB | EB | EB | EB | EB | EB | | | | | | | |
| SOIL SUBGROUP | | | R | R | R | R | R | R | R | R | | | | | | | |
| SOIL GREAT GROUP | | | R | R | R | R | R | R | R | R | | | | | | | |
| SOIL DRAINAGE | | 55.0 | 55 | | | | | | | | | | | | | | |
| SOLUM THICKNESS(CM) | | | | | | | | | | | | | | | | | |
| TYPE & DEPTH TO RESTRICT(CM) | | 3.0 | 3 | | | | | | | | | | | | | | |
| THICKNESS LFH(CM) | | 0.0 | | | | | | | | | | | | | | | |
| PH-LFH | | 4.2 | 4.2 | | | | | | | | | | | | | | |
| -A | | 4.8 | 4.8 | | | | | | | | | | | | | | |
| -B | | 5.0 | 5.0 | | | | | | | | | | | | | | |
| -C | | | | | | | | | | | | | | | | | |
| TEXTURE -A/1 | | | SL | S | S | S | S | S | S | S | | | | | | | |
| -B/2 | | | SL | | | | | | | | | | | | | | |
| -C/3 | | | S | | | | | | | | | | | | | | |
| COARSE FRAGMENTS-B(%) | | 0.0 | | | | | | | | | | | | | | | |
| SEEPAGE(*) & MOTTILING(CM) | | | | | | | | | | | | | | | | | |
| ROOTING DEPTH(CM) | | 50.0 | 50 | | | | | | | | | | | | | | |
| VEGETATION : | | | | | | | | | | | | | | | | | |
| ASSOCIATION | | | P2 | P2 | P2 | P2 | P2 | P2 | P2 | P2 | | | | | | | |
| STAND AGE(YR) | | 59.4 | 36 | 93 | 41 | 40 | 32 | 125 | 49 | | | | | | | | |
| CANOPY HEIGHT(M) | | 16.5 | 12 | 14 | 21 | 16 | 12 | 23 | 20 | | | | | | | | |
| MEAN ANNUAL INCREMENT | | 0.0 | | | | | | | | | | | | | | | |
| STRATA COVERAGE(%) -A | | 28.1 | 15 | 15 | 55 | 50 | 25 | 15 | 35 | | | | | | | | |
| -B | | 12.9 | 75 | 5 | 2 | 2 | 2 | 7 | 5 | | | | | | | | |
| -C | | 26.0 | 3 | 35 | 60 | 30 | 20 | 15 | 15 | | | | | | | | |
| -G | | 3.5 | 5 | 5 | 1 | 1 | 2 | 2 | 11 | | | | | | | | |
| -D | | 4.5 | 2 | 0 | 9 | 11 | 1 | 1 | 2 | | | | | | | | |
| -L | | 27.6 | 30 | 60 | 30 | 29 | 53 | 5 | 8 | | | | | | | | |
| SURFACE SUBST(%) -DEAD WOOD | | 8.4 | 1 | 4 | 15 | 10 | 2 | 15 | 10 | | | | | | | | |
| -BEDROCK | | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| -STONES | | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| -MIN. SOIL | | 0.5 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | | | | | | | | |
| -ORGANIC | | 91.1 | 99 | 95 | 85 | 90 | 95 | 85 | 90 | | | | | | | | |
| -OPEN WATER | | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| BIOMASS(KG/HA) -FORBS | | 4.6 | | 4.0 | .4 | 1.2 | 7.0 | 17 | 1.7 | | | | | | | | |
| -GRAMINOIDS | | 8.4 | | 8.8 | .2 | 3.2 | 6.0 | 37 | 3.7 | | | | | | | | |
| -BROWSE | | 0.0 | | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |

| LEVEL | | ZONE | ASSC | TYPE | ECOSYM UNIT | | P | 2 | PINE/BEARBERRY/LICHEN | | | | | | | | | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | | | | | | | TABLE 1 | | PAGE 1 | | RESOURCE INVENTORY | | EDMONTON, ALBERTA | | APR 19, 1985 | | 10:55:12 | |
|-------------|--|----------------------------|------|---------|-------------|---------------|---------|---------|-----------------------|---------|---------|---------|---------|---------|--|------|--|------|--|--|--|--|--|--|--|--|--|--|---------|--|--------|--|--------------------|--|-------------------|--|--------------|--|----------|--|
| PLOT NUMBER | | NUMBER OF SPECIES PER PLOT | | SPECIES | | AVERAGE VALUE | 4B LO02 | 2L LO02 | 2L LO45 | 2L LO46 | 2L LO63 | 2L LO93 | 2L L106 | 2L L112 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | %P MC | %C SV | %C SV | %C SV | %C SV | %C SV | %C SV | %C SV | %C SV | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A1 LAYER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 PINU BAN | | 100.0 26.8 | | 5 2 | | 15 2 | | 17 2 | | 55 2 | | 55 2 | | 30 2 | | 10 2 | | 27 2 | | | | | | | | | | | | | | | | | | | | | | |
| 2 PICE GLA | | 25.0 0.5 | | 2 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 PICE MAR | | 12.5 0.3 | | 2 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A2 LAYER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PINU BAN | | 75.0 2.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 POPU TRE | | 25.0 0.9 | | 2 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PICE GLA | | 12.5 0.6 | | 5 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 BETU PAP | | 12.5 0.3 | | 2 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E LAYER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 USNE SUB | | 12.5 1.9 | | 15 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 CETR HAL | | 12.5 1.3 | | 10 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 CETR PIN | | 12.5 1.3 | | 10 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 HYPO PHY | | 12.5 1.3 | | 10 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 PARM SUL | | 12.5 1.3 | | 10 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 BRYO FUS | | 12.5 0.6 | | 5 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 EVER MES | | 12.5 0.6 | | 5 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B1 LAYER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| POPU TRE | | 37.5 1.4 | | 5 2 | | | | | | | | | | | | 5 2 | | 1 2 | | | | | | | | | | | | | | | | | | | | | | |
| 13 ALNU CRI | | 12.5 1.3 | | 10 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PICE GLA | | 12.5 1.3 | | 10 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PINU BAN | | 12.5 0.6 | | | | | | 5 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B2 LAYER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 VACC MYR | | 87.5 7.6 | | 20 2 | | 10 2 | | 2 2 | | 17 2 | | 2 2 | | 3 2 | | | | 7 2 | | | | | | | | | | | | | | | | | | | | | | |
| PICE GLA | | 62.5 2.6 | | 10 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 ROSA ACI | | 62.5 1.0 | | 1 2 | | 1 1 | | 3 1 | | 2 2 | | 1 2 | | 1 2 | | | | 1 2 | | | | | | | | | | | | | | | | | | | | | | |
| 16 AMEL ALN | | 62.5 0.6 | | | | | | 1 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| PLOT NUMBER | 4B | 4B | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L |
|------------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| TOWNSHIP & RANGE | LO05 | LO15 | LO03 | LO04 | LO31 | LO36 | LO42 | LO64 | LO69 | LO78 | LO80 | LO82 | LO84 | LO86 | LO88 | LO90 | LO92 | LO94 |
| MERIDIAN | W 4 | W 4 | W 4 | W 4 | W 4 | W 4 | W 4 | W 4 | W 4 | W 4 | W 4 | W 4 | W 4 | W 4 | W 4 | W 4 | W 4 | W 4 |
| MAPSHEET | 73L | 73L | 73L | 73L | 73L | 73L | 73L | 73L | 73L | 73L | 73L | 73L | 73L | 73L | 73L | 73L | 73L | 73L |
| PHYSIOGRAPHIC SUBREGION | 12 | 12 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| GEOMORPHIC SYSTEM | | | | | | | | | | | | | | | | | | |
| ECOSECTION | | | | | | | | | | | | | | | | | | |
| ELEVATION(MASL) | 596.9 | 570 | 590 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 |
| SLOPE(%) | 5.5 | 8 | 1 | 3 | 2 | 2 | 2 | 1 | 10 | 5 | 22 | 3 | 5 | 5 | 5 | 5 | 5 | 5 |
| ASPECT(DEG) | 212 | 212 | 276 | 240 | 337 | 122 | 67 | 86 | 170 | 75 | 314 | 274 | 174 | | | | | |
| ENVIRONMENT/SOILS : | | | | | | | | | | | | | | | | | | |
| ECOLOGICAL MOISTURE REGIME | SX | SM | SX | SX | X | SM | SX | SX | SM | SX | SX | X | SX | | | | | |
| NUTRIENT REGIME | SM | SM | | | | | | | | | | | | | | | | |
| OVERLYING MATERIAL | GFb | GFb | | GF | GF | GF | GF | GF | GF | GF | GF | E | GF | | | | | |
| UNDERLYING MATERIAL | M | M | | | | | | | | | | | | | | | | |
| EROSION/DEPOSITION | | | | | | | | | | | | | | | | | | |
| SOIL SUBGROUP | E | E | E | E | E | E | E | E | E | E | E | E | E | | | | | |
| SOIL GREAT GROUP | DYB | DYB | EB | EB | EB | EB | EB | EB | EB | EB | EB | EB | EB | | | | | |
| SOIL DRAINAGE | W | W | W | R | R | W | R | R | W | R | W | R | R | | | | | |
| SOLUM THICKNESS(CM) | 73.0 | 65 | 81 | | | | | | | | | | | | | | | |
| TYPE & DEPTH TO RESTRICT(CM) | | | | | | | | | | | | | | | | | | |
| THICKNESS LFH(CM) | 5.0 | 5 | 5 | | | | | | | | | | | | | | | |
| PH-LFH | 0.0 | | | | | | | | | | | | | | | | | |
| -A | 4.7 | 4.8 | 4.5 | | | | | | | | | | | | | | | |
| -B | 4.7 | 4.3 | 5.1 | | | | | | | | | | | | | | | |
| -C | 5.0 | 5.0 | 5.0 | | | | | | | | | | | | | | | |
| TEXTURE-A/1 | SL | SL | SL | S | LS | S | S | S | S | S | S | S | S | | | | | |
| -B/2 | SL | SL | SL | S | LS | S | S | S | S | S | S | S | S | | | | | |
| -C/3 | S | S | S | | | | | | | | | | | | | | | |
| COARSE FRAGMENTS-B(%) | | | | | | | | | | | | | | | | | | |
| SEEPAGE(*) & MOTTLING(CM) | | | | | | | | | | | | | | | | | | |
| ROOTING DEPTH(CM) | 32.5 | 35 | 30 | | | | | | | | | | | | | | | |
| VEGETATION : | | | | | | | | | | | | | | | | | | |
| ASSOCIATION | P3 | P3 | P3 | P3 | P3 | P3 | P3 | P3 | P3 | P3 | P3 | P3 | P3 | | | | | |
| STAND AGE(YR) | 53.8 | 50 | 47 | 44 | 89 | 68 | 35 | 47 | 40 | 63 | 40 | 60 | 63 | | | | | |
| CANOPY HEIGHT(M) | 17.4 | 15 | 15 | 16 | 17 | 16 | 25 | 17 | 15 | 16 | 16 | 17 | 15 | | | | | |
| MEAN ANNUAL INCREMENT | | | | | | | | | | | | | | | | | | |
| STRATA COVERAGE(%) -A | 49.0 | 65 | 35 | 40 | 25 | 75 | 30 | 45 | 45 | 50 | 60 | 67 | 75 | | | | | |
| -B | 27.8 | 35 | 50 | 50 | 30 | 15 | 30 | 10 | 30 | 15 | 30 | 40 | 40 | | | | | |
| -C | 47.7 | 50 | 65 | 5 | 85 | 80 | 15 | 35 | 65 | 35 | 15 | 30 | 65 | | | | | |
| -G | 6.8 | 15 | 45 | 1 | 2 | 1 | 2 | 1 | 3 | 15 | 1 | 1 | 1 | | | | | |
| -D | 5.2 | 1 | 2 | 1 | 9 | 12 | 1 | 1 | 22 | 1 | 3 | 2 | 2 | | | | | |
| -L | 3.4 | 1 | 0 | 1 | 8 | 2 | 0 | 1 | 6 | 2 | 1 | 12 | 1 | | | | | |
| SURFACE SUBST(%) -DEAD WOOD | 4.4 | 5 | 10 | 1 | 1 | 1 | 1 | 7 | 1 | 1 | 5 | 3 | 1 | | | | | |
| -BEDROCK | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| -STONES | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| -MIN. SOIL | 0.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| -ORGANIC | 95.2 | 95 | 90 | 99 | 75 | 99 | 99 | 93 | 99 | 99 | 95 | 97 | 99 | | | | | |
| -OPEN WATER | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| -FORBS | 5.7 | | | 6.4 | 9.6 | 2.8 | 2.4 | 2.4 | 9.2 | 7.6 | 8.8 | 2.4 | 3.2 | | | | | |
| -GRAMINOIDS | 5.3 | | | 2.8 | 8.8 | 2.4 | 6.8 | 1.2 | 5.2 | 26.4 | .4 | .8 | 3.2 | | | | | |
| -BROWSE | 0.0 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |

| LEVEL | | ZONE | | ASSC TYPE | | PINE/ALDER/BLUEBERRY | | | | | | | | | | | | | | RESOURCE INVENTORY | | | | | | | | | |
|----------------------------|--|----------|--|-----------|--|--|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|--------------------|--|-------|--|-------|--|-------|--|-------|--|
| ECOSYM UNIT | | P | | 3 | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | | | | | | | | | | | 10:55:12 | | | | | | | | | |
| | | | | | | EDMONTON, ALBERTA | | | | | | | | | | | | | | APR 19, 1985 | | | | | | | | | |
| | | | | | | TABLE 2 | | | | | | | | | | | | | | PAGE 3 | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PLOT NUMBER | | AVERAGE | | 4B | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | |
| | | VALUE | | LO05 | | LO03 | | LO04 | | LO31 | | LO36 | | LO42 | | LO64 | | LO69 | | LO78 | | LO80 | | LO82 | | LO84 | | | |
| NUMBER OF SPECIES PER PLOT | | 30.4 | | 36 | | 28 | | 34 | | 24 | | 29 | | 30 | | 20 | | 36 | | 37 | | 30 | | 30 | | 26 | | | |
| SPECIES | | %P MC | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | |
| 75 BRAC SAL | | 23.1 0.3 | | 2 2 | | 1 2 | | | | | | 1 2 | | | | | | | | | | | | | | | | | |
| 76 HYLO SPL | | 7.7 0.2 | | | | | | | | | | | | | | | | 2 2 | | | | | | | | | | | |
| 77 CLAD MIT | | 76.9 2.8 | | 1 2 | | 1 2 | | 8 2 | | 2 2 | | | | 9 2 | | 1 2 | | 6 2 | | 2 2 | | | | 5 2 | | 1 2 | | | |
| 78 CLAD FUR | | 30.8 0.4 | | | | | | 1 2 | | | | | | | | 1 2 | | 1 2 | | | | | | 2 2 | | | | | |
| 79 PELT APH | | 15.4 0.5 | | | | | | | | | | | | | | | | | | | | | | 5 1 | | | | | |
| 80 PELT MAL | | 15.4 0.2 | | | | | | 1 2 | | | | | | | | | | | | | | | | | | | | | |
| 81 CLAD CRI | | 7.7 0.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 82 CLAD DEF | | 7.7 0.1 | | | | | | | | | | | | | | | | | | | | | | | | 1 2 | | | |

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| | | | | | | | | | | | | | |
|---|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| PLOT NUMBER TOWNSHIP & RANGE MERIDIAN MAPSHEET | MEAN | 4B | 4B | 4B | 4B | 4B | 2L | 2L | 2L | 2L | 2L | 2L | 2L |
| | | LO17 W 4 | LO03 W 4 | LO14 W 4 | LO16 W 4 | LO24 W 4 | LO01 W 4 | LO01 W 4 | LO01 W 4 | LO01 W 4 | LO01 W 4 | LO01 W 4 | LO01 W 4 |
| | | 73L 12 | 73L 12 | 73L 12 | 73L 12 | 73L 11 | 73L 11 | 73L 11 | 73L 11 | 73L 11 | 73L 11 | 73L 11 | 73L 11 |
| | | | | | | | | | | | | | |
| PHYSIOGRAPHIC SUBREGION | | | | | | | | | | | | | |
| GEOMORPHIC SYSTEM | | | | | | | | | | | | | |
| ECOSECTION | 593.3 | 590 | 580 | 580 | 590 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 |
| ELEVATION(MASL) | 6.3 | 4 | 15 | 14 | 12 | 4 | 2 | 0 | 4 | 2 | 4 | 2 | 2 |
| SLOPE(%) | | 90 | 227 | 90 | 90 | 208 | 185 | | 319 | 350 | | | |
| ASPECT(DEG) | | | | | | | | | | | | | |
| ENVIRONMENT/SOILS : | | | | | | | | | | | | | |
| ECOLOGICAL MOISTURE REGIME | | SX | SM | SM | SX | M | SX | M | SM | M | SM | SM | SM |
| NUTRIENT REGIME | | M | SM | M | M | | | | GF | GF | GF | GF | GF |
| OVERLYING MATERIAL | | GFb | GFb | Mb | GFb | M | | | | | | | |
| UNDERLYING MATERIAL | | M | M | R | M | | | | | | | | |
| EROSION/DEPOSITION | | E | O | BR | E | BR | E | BR | BR | BR | BR | BR | BR |
| SOIL SUBGROUP | | DYB | GL | GL | DYB | GL | EB | GL | GL | GL | GL | GL | GL |
| SOIL GREAT GROUP | | MW | MW | MW | MW | W | W | W | W | W | W | W | W |
| SOIL DRAINAGE | | | | | | | | | | | | | |
| SOLUM THICKNESS(CM) | 76.0 | 60 | 80 | 54 | 110 | | | | | | | | |
| TYPE & DEPTH TO RESTRICT(CM) | | | | | | | | | | | | | |
| THICKNESS LFH(CM) | 8.0 | 6 | 6 | 10 | 10 | | | | | | | | |
| pH-LFH | 0.0 | | | | | | | | | | | | |
| -A | 0.0 | | | | | | | | | | | | |
| -B | 5.0 | 5.5 | 5.3 | 6.5 | 7.0 | | | | | | | | |
| -C | 7.0 | 7.0 | 8.0 | 8.0 | 5.0 | | | | | | | | |
| TEXTURE -A/1 | | LS | SL | SL | S | | | | | | | | |
| -B/2 | | SCL | CL | SICL | S | | S | S | S | S | S | S | S |
| -C/3 | | S | SCL | CL | SL | | | | | | | | |
| COARSE FRAGMENTS-B(%) | 7.5 | 10 | 5 | | | | | | | | | | |
| SEEPAGE(*) & MOTTILING(CM) | | | | | | | | | | | | | |
| ROOTING DEPTH(CM) | 30.3 | 23 | 21 | 32 | 45 | | | | | | | | |
| VEGETATION : | | | | | | | | | | | | | |
| ASSOCIATION | | A1b | A1b | A1b | A1b | A1b | A1b | A1b | A1b | A1b | A1b | A1b | A1b |
| STAND AGE(YR) | 52.3 | 26 | 52 | 68 | 75 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| CANOPY HEIGHT(M) | 18.1 | 19 | 13 | 18 | 21 | 25 | 15 | 22 | 17 | 13 | | | |
| MEAN ANNUAL INCREMENT | 0.0 | | | | | | | | | | | | |
| STRATA COVERAGE(%) -A | 66.7 | 65 | 75 | 75 | 70 | 45 | 80 | 70 | 55 | 65 | | | |
| -B | 48.7 | 95 | 53 | 65 | 40 | 65 | 15 | 60 | 30 | 15 | | | |
| -C | 33.3 | 20 | 15 | 40 | 60 | 15 | 35 | 40 | 25 | 50 | | | |
| -G | 8.7 | 5 | 13 | 25 | 5 | 2 | 10 | 10 | 1 | 7 | | | |
| -L | 1.1 | 0 | 1 | 0 | 1 | 2 | 3 | 1 | 1 | 1 | | | |
| SURFACE SUBST(%) -DEAD WOOD | 4.9 | 5 | 1 | 2 | 15 | 15 | 1 | 3 | 1 | 1 | | | |
| -BEDROCK | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| -STONES | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| -MIN. SOIL | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| -ORGANIC | 95.1 | 95 | 99 | 98 | 85 | 85 | 99 | 97 | 99 | 99 | | | |
| -OPEN WATER | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| BIOMASS(KG/HA) -FORBS | 36.2 | | | | | 30.0 | 27.2 | 28.4 | 57.6 | 37.6 | | | |
| -GRAMINOIDS | 11.9 | | | | | 3.2 | 9.6 | 14.2 | 19.6 | 12.8 | | | |
| -BROWSE | 1.7 | | | | | 5.6 | 2.9 | 0 | 0 | 0 | | | |

| LEVEL | | | ZONE | | ASSC TYPE | | ASPEN/WILLOW/SARSAPARILLA | | | | | | | | | | RESOURCE INVENTORY | | | | | | | | | |
|----------------------------|----------|--|---------|------|--|---|---------------------------|---|-------|---|-------|----|-------|---|--|---|--------------------|---|-------|---|-------|---|-------|---|----|--|
| ECOSYM UNIT A | | | 1b | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | | | | | | | EDMONTON, ALBERTA 10:55:12 APR 19, 1985 TABLE 4 PAGE 1 | | | | | | | | | | | |
| PLOT NUMBER | | | AVERAGE | | 4B | | 4B | | 4B | | 4B | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | |
| NUMBER OF SPECIES PER PLOT | | | VALUE | | LO17 | | LO03 | | LO14 | | LO16 | | LO16 | | LO24 | | LO01 | | LO34 | | LO39 | | LO50 | | | |
| SPECIES | | | %P MC | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | | |
| A1 LAYER | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | POPU TRE | | 88.9 | 50.0 | 45 | 2 | 60 | 2 | 65 | 2 | 30 | 2 | 30 | 2 | 80 | 2 | 50 | 2 | 55 | 2 | 65 | 2 | 2 | 2 | | |
| 2 | POPU BAL | | 33.3 | 4.1 | | | | | | | | | | | | | | | | | | | | | | |
| 3 | PICE GLA | | 11.1 | 1.7 | | | | | | | | | | | | | | | | | | | | | | |
| 4 | BETU PAP | | 11.1 | 0.2 | | | | | | | | | | | | | | | | | | | | | | |
| A2 LAYER | | | | | | | | | | | | | | | | | | | | | | | | | | |
| POPU TRE | | | 77.8 | 12.8 | 20 | 2 | 10 | 2 | 5 | 2 | 40 | 2 | 5 | 2 | 20 | 1 | | | | | 10 | 2 | 10 | 1 | | |
| POPU BAL | | | 55.6 | 2.8 | 5 | 2 | 5 | 2 | 5 | 2 | | | | | 5 | 2 | | | | | 5 | 2 | 5 | 2 | | |
| BETU PAP | | | 44.4 | 2.8 | 15 | 2 | | | | | 3 | 2 | | | | | | | | | 10 | 2 | 4 | 2 | | |
| PICE GLA | | | 22.2 | 1.6 | | | | | | | | | | | | | | | | | | | | | | |
| E LAYER | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | PVLA POL | | 44.4 | 2.8 | 5 | 2 | 10 | 2 | 5 | 2 | 5 | 2 | | | | | | | | | | | | | | |
| 6 | CETR PIN | | 33.3 | 1.7 | 5 | 2 | 5 | 2 | | | 5 | 2 | | | | | | | | | | | | | | |
| 7 | CETR HAL | | 22.2 | 1.1 | 5 | 2 | | | | | | | | | | | | | | | | | | | | |
| 8 | EVER MES | | 22.2 | 1.1 | 5 | 2 | | | | | 5 | 2 | | | | | | | | | | | | | | |
| 9 | PARM SUL | | 22.2 | 1.1 | 5 | 2 | | | | | 5 | 2 | | | | | | | | | | | | | | |
| 10 | CERT PIN | | 11.1 | 0.6 | | | | | | | 5 | 2 | | | | | | | | | | | | | | |
| 11 | HYPO PHY | | 11.1 | 0.6 | | | | | | | 5 | 2 | | | | | | | | | | | | | | |
| B1 LAYER | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | SALI BEB | | 66.7 | 8.3 | 15 | 2 | | | 5 | 2 | 5 | 2 | | | 5 | 2 | 10 | 1 | 35 | 2 | | | | | | |
| 13 | AMEL ALN | | 33.3 | 2.6 | 5 | 2 | 8 | 2 | 10 | 2 | | | | | | | | | | | | | | | | |
| 14 | CORY COR | | 11.1 | 4.4 | 40 | 2 | | | | | | | | | 10 | 2 | 5 | 1 | | | | | | | | |
| 15 | ALNU CRI | | 11.1 | 1.1 | | | | | | | | | | | | | | | | | | | | | | |
| POPU TRE | | | 11.1 | 0.6 | | | | | | | | | | | | | | | | | | | | | | |
| PICE GLA | | | 11.1 | 0.2 | | | | | | | | | | | | | | | | | | | | | | |
| B2 LAYER | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | ROSA ACI | | 100.0 | 5.4 | 5 | 2 | 10 | 2 | 5 | 2 | 15 | 2 | | | | | | | | | | | | | | |
| 17 | VIBU EDU | | 77.8 | 9.8 | 1 | 2 | | | 1 | 2 | 2 | 10 | 2 | | | | | | | | | | | | | |
| SALI BEB | | | 66.7 | 4.2 | 10 | 2 | 1 | 2 | 1 | 2 | 10 | 2 | | | | | | | | | | | | | | |
| AMEL ALN | | | 66.7 | 2.3 | 2 | 2 | 7 | 2 | 5 | 2 | 5 | 2 | | | | | | | | | | | | | | |
| 18 | SYMP ALB | | 55.6 | 0.8 | 3 | 2 | 1 | 2 | | | | | | | | | | | | | | | | | | |
| CORY COR | | | 33.3 | 8.3 | 10 | 2 | 30 | 2 | 35 | 2 | | | | | | | | | | | | | | | | |
| ALNU CRI | | | 33.3 | 1.9 | | | | | | | | | | | | | | | | | | | | | | |
| 19 | LONI DIO | | 33.3 | 0.9 | | | | | | | | | | | | | | | | | | | | | | |
| 20 | RIBE OXY | | 33.3 | 0.4 | | | | | | | | | | | | | | | | | | | | | | |
| 21 | LONI INV | | 22.2 | 2.8 | | | | | | | | | | | | | | | | | | | | | | |
| 22 | VACC MYR | | 22.2 | 1.2 | | | | | | | | | | | | | | | | | | | | | | |
| 23 | CORN STO | | 22.2 | 0.7 | | | | | | | | | | | | | | | | | | | | | | |
| PICE GLA | | | 22.2 | 0.4 | | | | | | | | | | | | | | | | | | | | | | |
| 24 | RUBU IDA | | 22.2 | 0.2 | | | | | | | | | | | | | | | | | | | | | | |
| POPU TRE | | | 11.1 | 0.6 | 5 | 2 | | | | | | | | | | | | | | | | | | | | |
| 25 | PRUN VIR | | 11.1 | 0.6 | | | | | | | | | | | | | | | | | | | | | | |
| LONI VIL | | | 11.1 | 0.2 | | | | | | | | | | | | | | | | | | | | | | |
| 27 | RIBE HIR | | 11.1 | 0.2 | | | | | | | | | | | | | | | | | | | | | | |
| BETU PAP | | | 11.1 | 0.1 | 1 | 2 | | | | | | | | | | | | | | | | | | | | |
| 28 | LEDU GRO | | 11.1 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| POPU BAL | | | 11.1 | 0.1 | 1 | 2 | | | | | | | | | | | | | | | | | | | | |
| 29 | RIBE TRI | | 11.1 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |

| LEVEL | | | ZONE | | ASSC TYPE | | ASPER/WILLOW/SARSAPARILLA | | | | | | | | | | RESOURCE INVENTORY | | | | | | | | | |
|---------------|--|--|------|--|-----------|--|--|--|--|--|--|--|--|--|--|--|--------------------|--|--|--|--|--|--|--|--|--|
| ECOSYM UNIT A | | | 1b | | | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | | | | | | | EDMONTON, ALBERTA | | | | | | | | | |
| | | | | | | | 10:55:12 | | | | | | | | | | APR 19, 1985 | | | | | | | | | |
| | | | | | | | TABLE 4 | | | | | | | | | | PAGE 2 | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| LEVEL | | ZONE | | ASSC | | TYPE | | RESOURCE INVENTORY EDMONTON, ALBERTA 10:55:12 APR 19 1985 ASPEN/WILLOW/SARSAPARILLA PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) TABLE 4 PAGE 3 | | | | | | | | | | | | | | | |
|----------------------------|--|---------|--|------|--|------|--|---|--|------|--|------|--|------|--|------|--|------|--|------|--|----|--|
| ECOSYM UNIT | | A | | 1b | | | | | | | | | | | | | | | | | | | |
| PLOT NUMBER | | AVERAGE | | 4B | | 4B | | 4B | | 4B | | 4B | | 2L | | 2L | | 2L | | 2L | | 2L | |
| | | VALUE | | LO17 | | LO03 | | LO14 | | LO16 | | LO24 | | LO01 | | LO34 | | LO39 | | LO50 | | | |
| NUMBER OF SPECIES PER PLOT | | 33.6 | | 38 | | 34 | | 30 | | 29 | | 34 | | 31 | | 39 | | 32 | | 35 | | | |
| SPECIES | | %P | | %C | | %C | | %C | | %C | | %C | | %C | | %C | | %C | | %C | | %C | |
| 75 PLEU SCH | | 22.2 | | 0.2 | | | | | | 1 | | 2 | | | | | | 1 | | 2 | | | |
| 76 BRAC CAM | | 11.1 | | 0.1 | | | | | | 1 | | 2 | | | | | | | | | | | |
| 77 PTIL CRI | | 11.1 | | 0.1 | | | | | | | | | | 1 | | 2 | | | | | | | |
| L LAYER | | | | | | | | | | | | | | | | | | | | | | | |
| 78 PELT CAN | | 11.1 | | 0.1 | | | | | | | | | | 1 | | 2 | | | | | | | |

| PLOT NUMBER | | 4B | 4B | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L |
|------------------------------|--|-------|------|------|------|------|------|------|------|------|------|----|----|----|----|----|
| TOWNSHIP & RANGE | | LO18 | LO07 | LO05 | LO26 | LO53 | LO55 | LO56 | LO09 | LO37 | LO20 | | | | | |
| MERIDIAN | | 6612 | 6613 | 64 8 | 64 9 | 64 9 | 64 9 | 64 9 | 64 8 | 64 8 | 6410 | | | | | |
| MAPSHEET | | W 4 | W 4 | W 4 | W 4 | W 4 | W 4 | W 4 | W 4 | W 4 | W 4 | | | | | |
| PHYSIOGRAPHIC SUBREGION | | 73L | 73L | 73L | 73L | 73L | 73L | 73L | 73L | 73L | 73L | | | | | |
| GEOMORPHIC SYSTEM | | 12 | 13 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | | | | | |
| ECOSECTION | | | | | | | | | | | | | | | | |
| ELEVATION(MASL) | | 597.0 | 590 | 580 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | | | | | |
| SLOPE(%) | | 5.3 | 5 | 0 | 31 | 0 | 1 | 5 | 3 | 3 | 2 | | | | | |
| ASPECT(DEG) | | | | | 18 | | 106 | 66 | 140 | 200 | 222 | | | | | |
| ENVIRONMENT/SOILS : | | | | | | | | | | | | | | | | |
| ECOLOGICAL MOISTURE REGIME | | SM | SM | SM | SM | SM | M | M | M | SM | M | | | | | |
| NUTRIENT REGIME | | SM | M | | | | GF | GF | GF | M | M | | | | | |
| OVERLYING MATERIAL | | GFV | GFV | GF | GF | GF | | | | | | | | | | |
| UNDERLYING MATERIAL | | M | M | | | | | | | | | | | | | |
| EROSION/DEPOSITION | | | | | | | | | | | | | | | | |
| SOIL SUBGROUP | | BR | GL | E | E | BR | BR | BR | GL | GL | GL | | | | | |
| SOIL DRAINAGE | | W | MW | W | W | W | W | W | W | W | MW | | | | | |
| SOLUM THICKNESS(CM) | | 60.0 | 60 | 60 | | | | | | | | | | | | |
| TYPE & DEPTH TO RESTRICT(CM) | | | | | | | | | | | | | | | | |
| THICKNESS LFH(CM) | | 9.5 | 5 | 14 | | | | | | | | | | | | |
| PH-LFH | | 0.0 | | | | | | | | | | | | | | |
| -A | | 4.9 | 4.5 | 5.3 | | | | | | | | | | | | |
| -B | | 5.4 | 5.0 | 5.9 | | | | | | | | | | | | |
| -C | | 6.0 | 5.0 | 7.0 | | | | | | | | | | | | |
| TEXTURE-A/1 | | SCL | S1L | S | S | S | S | S | S | L | L | | | | | |
| -B/2 | | CL | CL | S | | | | | | | | | | | | |
| -C/3 | | CL | S | | | | | | | | | | | | | |
| COARSE FRAGMENTS-B(%) | | 6.5 | 8 | 5 | | | | | | | | | | | | |
| SEEPAGE(*) & MOTTILING(CM) | | | | | | | | | | | | | | | | |
| ROOTING DEPTH(CM) | | 22.0 | 28 | 16 | | | | | | | | | | | | |
| VEGETATION : | | | | | | | | | | | | | | | | |
| ASSOCIATION | | A2 | A2 | A2 | A2 | A2 | A2 | A2 | A2 | A2 | A2 | | | | | |
| STAND AGE(YR) | | 88.3 | 57 | 26 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | | | | | |
| CANOPY HEIGHT(M) | | 21.8 | 19 | 19 | 23 | 25 | 20 | 25 | 24 | 15 | 27 | | | | | |
| MEAN ANNUAL INCREMENT | | 0.0 | | | | | | | | | | | | | | |
| STRATA COVERAGE(%) -A | | 45.5 | 35 | 40 | 60 | 45 | 40 | 65 | 30 | 40 | 40 | | | | | |
| -B | | 32.0 | 50 | 30 | 35 | 20 | 30 | 30 | 30 | 40 | 15 | | | | | |
| -C | | 39.5 | 45 | 30 | 40 | 65 | 40 | 15 | 40 | 60 | 25 | | | | | |
| -G | | 8.5 | 35 | 5 | 1 | 10 | 2 | 0 | 2 | 15 | 10 | | | | | |
| -D | | 1.8 | 1 | 1 | 1 | 5 | 0 | 5 | 2 | 1 | 1 | | | | | |
| -L | | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| SURFACE SUBST(%) -DEAD WOOD | | 4.1 | 10 | 2 | 1 | 3 | 2 | 3 | 10 | 1 | 2 | | | | | |
| -BEDROCK | | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| -STONES | | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| -MIN SOIL | | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| -ORGANIC | | 95.9 | 90 | 98 | 99 | 97 | 98 | 97 | 90 | 99 | 98 | | | | | |
| -OPEN WATER | | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| BIOMASS(KG/HA) -FORBS | | 36.1 | | | 16.4 | 42.4 | 53.2 | 30.8 | 15.2 | 35.2 | 43.2 | | | | | |
| -GRAMINOIDS | | 7.7 | | | 1.6 | 14.0 | 1.6 | .7 | 6.0 | .2 | 24.4 | | | | | |
| -BROWSE | | 9.4 | | | 0 | 0 | 18.1 | 0 | 0 | 0 | 0 | | | | | |

| LEVEL | | | ZONE | | ASSC | | TYPE | | ASPEN/POPLAR/CRANBERRY | | | | | | | | | | RESOURCE INVENTORY | | | | | | | | | |
|----------------------------|--|--|------------|--|-------|--|-------|--|--|--|-------|--|-------|--|-------|--|-------|--|--|--|-------|--|-------|--|--|--|--|--|
| ECOSYM UNIT | | | A | | 2 | | | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | | | | | | | EDMONTON, ALBERTA 10:55:12 APR 19, 1985 TABLE 5 PAGE 1 | | | | | | | | | |
| PLOT NUMBER | | | AVERAGE | | 4B | | 4B | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | | | | | |
| NUMBER OF SPECIES PER PLOT | | | VALUE | | LO18 | | LO07 | | LO05 | | LO26 | | LO53 | | LO55 | | LO56 | | LO09 | | LO37 | | LO20 | | | | | |
| SPECIES | | | %P MC | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | | | | |
| A1 LAYER | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 POPU TRE | | | 100.0 33.7 | | 25 2 | | 5 2 | | 60 2 | | 15 2 | | 25 2 | | 55 2 | | 25 2 | | 30 2 | | 25 2 | | 72 2 | | | | | |
| 2 POPU BAL | | | 60.0 6.4 | | 15 2 | | 15 2 | | | | | | 22 2 | | 10 2 | | 10 2 | | 5 2 | | 2 2 | | 2 2 | | | | | |
| 3 PICE GLA | | | 30.0 2.2 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 BETU PAP | | | 10.0 0.5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 PINU BAN | | | 10.0 0.1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| A2 LAYER | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| POPU TRE | | | 100.0 12.4 | | 5 2 | | 15 2 | | 5 2 | | 5 2 | | 2 2 | | 50 2 | | 20 2 | | 5 2 | | 10 2 | | 7 2 | | | | | |
| PICE GLA | | | 50.0 3.0 | | | | | | | | 5 2 | | 10 2 | | 5 1 | | 5 2 | | 5 2 | | | | | | | | | |
| POPU BAL | | | 50.0 3.0 | | | | 5 2 | | | | | | 2 2 | | 10 2 | | 10 2 | | | | | | 3 2 | | | | | |
| BETU PAP | | | 30.0 1.7 | | 10 2 | | | | | | | | | | 5 2 | | | | | | | | | | | | | |
| E LAYER | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 PARM SUL | | | 20.0 1.0 | | 5 2 | | 5 2 | | | | | | | | | | | | | | | | | | | | | |
| 7 PYLA POL | | | 20.0 1.0 | | 5 2 | | 5 2 | | | | | | | | | | | | | | | | | | | | | |
| 8 CERT PIN | | | 10.0 0.5 | | 5 2 | | | | | | | | | | | | | | | | | | | | | | | |
| 9 CETR HAL | | | 10.0 0.5 | | 5 2 | | | | | | | | | | | | | | | | | | | | | | | |
| 10 EVER MES | | | 10.0 0.5 | | 5 2 | | | | | | | | | | | | | | | | | | | | | | | |
| 11 ORTH OBT | | | 10.0 0.5 | | 5 2 | | | | | | | | | | | | | | | | | | | | | | | |
| 12 PARM FLA | | | 10.0 0.5 | | 5 2 | | | | | | | | | | | | | | | | | | | | | | | |
| 13 RAMA MIN | | | 10.0 0.5 | | 5 2 | | | | | | | | | | | | | | | | | | | | | | | |
| 14 USNE HIR | | | 10.0 0.5 | | 5 2 | | | | | | | | | | | | | | | | | | | | | | | |
| 15 XANT RAM | | | 10.0 0.5 | | 5 2 | | | | | | | | | | | | | | | | | | | | | | | |
| B1 LAYER | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 SALI BEB | | | 40.0 4.5 | | 15 2 | | | | | | | | | | | | | | 15 2 | | 10 2 | | 5 2 | | | | | |
| POPU BAL | | | 30.0 2.5 | | 5 2 | | | | | | 5 2 | | | | | | | | | | | | | | | | | |
| 17 ALNU CRI | | | 30.0 1.2 | | | | 4 2 | | | | 5 2 | | | | 5 2 | | | | | | | | 3 1 | | | | | |
| POPU TRE | | | 20.0 1.0 | | | | | | | | 2 2 | | | | 5 2 | | | | | | | | | | | | | |
| BETU PAP | | | 20.0 0.7 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 CORY COR | | | 10.0 0.1 | | | | 1 2 | | | | | | | | | | | | | | | | | | | | | |
| B2 LAYER | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 ROSA ACI | | | 100.0 7.8 | | 5 2 | | 10 2 | | 5 2 | | 10 2 | | 1 2 | | 15 2 | | 5 2 | | 12 2 | | 10 2 | | | | | | | |
| 20 VIBU EDU | | | 80.0 11.3 | | | | 5 2 | | 20 2 | | 20 2 | | 25 2 | | 2 2 | | 2 2 | | 13 2 | | 6 2 | | 25 2 | | | | | |
| 21 ANEL ALN | | | 50.0 4.2 | | 20 2 | | 1 2 | | | | | | | | | | | | 1 2 | | | | 1 2 | | | | | |
| 22 LONI DIO | | | 50.0 0.6 | | | | | | 1 2 | | 2 2 | | | | | | 1 2 | | 1 2 | | | | 5 2 | | | | | |
| ALNU CRI | | | 40.0 4.0 | | | | 3 2 | | 25 2 | | 5 2 | | | | | | 5 2 | | 3 2 | | | | | | | | | |
| 23 LONI INV | | | 40.0 3.0 | | | | | | | | | | | | | | 2 2 | | | | | | | | | | | |
| 24 CORN STO | | | 40.0 1.5 | | | | 10 2 | | | | 1 2 | | | | 1 2 | | 3 2 | | 1 2 | | | | 2 2 | | | | | |
| 25 SYMP ALB | | | 40.0 0.5 | | | | 1 2 | | | | 2 2 | | 10 2 | | | | 1 2 | | | | | | | | | | | |
| POPU TRE | | | 30.0 2.7 | | 15 2 | | | | | | 2 2 | | 5 2 | | | | 1 2 | | | | | | | | | | | |
| SALI BEB | | | 30.0 0.7 | | | | 1 2 | | 1 2 | | | | | | | | | | | | | | | | | | | |
| 26 RUBU IDA | | | 30.0 0.5 | | | | | | | | | | 2 2 | | | | 1 2 | | | | | | | | | | | |
| POPU BAL | | | 30.0 0.3 | | 1 2 | | 1 2 | | | | | | | | | | 1 2 | | | | | | | | | | | |
| PICE GLA | | | 20.0 0.6 | | 5 2 | | 1 2 | | 1 2 | | | | | | | | | | | | | | | | | | | |
| 27 VACC MYR | | | 20.0 0.5 | | | | | | | | 4 2 | | | | | | | | | | | | | | | | | |
| CORY COR | | | 20.0 0.4 | | | | 1 2 | | | | | | | | | | | | | | 3 2 | | | | | | | |
| 28 PRUN VIR | | | 20.0 0.3 | | | | 1 2 | | | | | | | | | | | | | | | | | | | | | |
| 29 RIBE OXY | | | 10.0 0.2 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 BETU OCC | | | 10.0 0.1 | | | | 1 2 | | | | | | | | | | | | | | | | | | | | | |

| LEVEL | | ZONE | | ASSC TYPE | | ASPE N POPLAR CRANBERRY | | | | | | | | | | RESOURCE INVENTORY | | | | | | | | | |
|----------------------------|--|---------|--|-----------|--|--|--|------|--|------|--|------|--|------|--|--------------------|--|------|--|------|--|------|--|----|--|
| ECOSYM UNIT | | A | | 2 | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | | | | | | | EDMONTON, ALBERTA | | | | | | | | | |
| | | | | | | 10:55:12 APR 19, 1985 | | | | | | | | | | TABLE 5 PAGE 3 | | | | | | | | | |
| PLOT NUMBER | | AVERAGE | | 4B | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | |
| | | VALUE | | LO18 | | LO07 | | LO05 | | LO26 | | LO53 | | LO55 | | LO56 | | LO09 | | LO37 | | LO20 | | | |
| NUMBER OF SPECIES PER PLOT | | 34.2 | | 34 | | 41 | | 27 | | 42 | | 26 | | 28 | | 43 | | 39 | | 31 | | 31 | | | |
| SPECIES | | %P | | %C | | SV | | %C | | SV | | %C | | SV | | %C | | SV | | %C | | SV | | %C | |
| 76 ORYZ ASP | | 20.0 | | 0.2 | | | | 1 | | 2 | | | | | | | | 1 | | 2 | | | | | |
| 77 CARE PEC | | 10.0 | | 0.1 | | | | 1 | | 2 | | | | | | | | 1 | | 2 | | | | | |
| 78 CARE PRA | | 10.0 | | 0.1 | | | | | | | | | | | | | | 1 | | 2 | | | | | |
| 79 HIER ODO | | 10.0 | | 0.1 | | | | | | | | | | | | | | | | | | | | | |
| D LAYER | | | | | | | | | | | | | | | | | | | | | | | | | |
| 80 BRAC SAL | | 50.0 | | 0.8 | | 1 | | 2 | | 3 | | 2 | | 2 | | 1 | | 2 | | 1 | | 2 | | 1 | |
| 81 PLEU SCH | | 50.0 | | 0.8 | | | | | | | | | | | | | | | | | | | | | |
| 82 BRAC CAM | | 10.0 | | 0.1 | | 1 | | 2 | | | | | | | | | | | | | | | | | |

| PLOT NUMBER TOWNSHIP & RANGE MERIDIAN MAPSHEET | MEAN | 4B | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L |
|--|--------------|------------------|----------------|-----------------|-----------------|-----------------|-----------------|----------------|------------------|----------------|-----------------|-----------------|
| | | LO06 W 4 | LO13 W 4 | LO14 W 4 | LO16 W 4 | LO21 W 4 | LO29 W 4 | LO73 W 4 | LO75 W 4 | LO77 W 4 | LO97 W 4 | LO98 W 4 |
| PHYSIOGRAPHIC SUBREGION GEOMORPHIC SYSTEM ECOSECTION ELEVATION(MASL) SLOPE(%) ASPECT(DEG) | 598.2 6.6 | 580 15 125 | 600 9 90 | 600 2 189 | 600 3 320 | 600 8 317 | 600 2 285 | 600 5 91 | 600 12 323 | 600 4 10 | 600 5 180 | 600 8 318 |
| ENVIRONMENT/SOILS | | | | | | | | | | | | |
| ECOLOGICAL MOISTURE REGIME | | SM | SM | M | M | M | SHG | M | M | M | M | M |
| NUTRIENT REGIME | | SM | SM | | | | | | | | | |
| OVERLYING MATERIAL | | MB | MB | M | M | M | M | M | M | M | M | M |
| UNDERLYING MATERIAL | | R | R | | | | | | | | | |
| EROSION/DEPOSITION | | | | | | | | | | | | |
| SOIL SUBGROUP | | BR | BR | O | BR | BR | GLO | O | O | O | O | O |
| SOIL GREAT GROUP | | GL | GL | GL | GL | GL | GL | GL | GL | GL | GL | GL |
| SOIL DRAINAGE | | MW | W | W | W | W | I | W | MW | MW | MW | MW |
| SOLUM THICKNESS(CM) | 47.5 | 55 | 40 | | | | | | | | | |
| TYPE & DEPTH TO RESTRICT(CM) | | | | | | | | | | | | |
| THICKNESS LFH(CM) | 7.0 | 6 | 8 | | | | | | | | | |
| PH-LFH | 0.0 | | | | | | | | | | | |
| -A | 5.4 | 5.4 | 5.5 | | | | | | | | | |
| -B | 5.1 | 5.0 | 5.1 | | | | | | | | | |
| -C | 5.3 | 4.5 | 6.0 | | | | | | | | | |
| TEXTURE-A/1 | | L | SL | | | | | | | | | |
| -B/2 | | CL | L | L | L | L | L | L | L | L | L | L |
| -C/3 | | CL | SICL | | | | | | | | | |
| COARSE FRAGMENTS-B(%) | 7.5 | 10 | 5 | | | | | | | | | |
| SEEPAGE(•) & MOTTILING(CM) | | | | | | | | | | | | |
| ROOTING DEPTH(CM) | 23.0 | 23 | | | | | | | | | | |
| VEGETATION | | | | | | | | | | | | |
| ASSOCIATION | | A3 | A3 | A3 | A3 | A3 | A3 | A3 | A3 | A3 | A3 | A3 |
| STAND AGE(YR) | 46.0 | 28 | 28 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| CANOPY HEIGHT(M) | 18.5 | 14 | 18 | 18 | 16 | 20 | 23 | 18 | 17 | 22 | 17 | 21 |
| MEAN ANNUAL INCREMENT | 0.0 | | | | | | | | | | | |
| STRATA COVERAGE(%) -A | 75.5 | 70 | 75 | 75 | 75 | 80 | 85 | 85 | 65 | 85 | 50 | 85 |
| -B | 38.9 | 35 | 35 | 35 | 35 | 55 | 40 | 8 | 25 | 15 | 25 | 25 |
| -C | 33.6 | 35 | 40 | 25 | 35 | 10 | 30 | 40 | 50 | 70 | 25 | 10 |
| -G | 3.1 | 5 | 5 | 7 | 1 | 1 | 1 | 5 | 2 | 1 | 5 | 1 |
| -D | 1.3 | 3 | 1 | 0 | 1 | 0 | 3 | 2 | 2 | 1 | 0 | 1 |
| -L | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| SURFACE SUBST(%) -DEAD WOOD | 2.9 | 2 | 3 | 1 | 2 | 2 | 10 | 2 | 1 | 1 | 3 | 5 |
| -BEDROCK | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -STONES | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -MIN. SOIL | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -ORGANIC | 97.1 | 98 | 97 | 99 | 98 | 98 | 90 | 98 | 99 | 99 | 97 | 95 |
| -OPEN WATER | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| BIOMASS(KG/HA) -FORBS | 20.7 | | 20.7 | 20.7 | 7.6 | 20.8 | 22.8 | 24.0 | 26.0 | 30.0 | 14.0 | 14.0 |
| -GRAMINOIDS | 5.8 | | 5.6 | 5.6 | 7.6 | 14.4 | 2.8 | 4 | 14.8 | 4 | 14.8 | 4 |
| -BROWSE | 6.8 | | 0 | 0 | 9.8 | 41.7 | 9.4 | 0 | 0 | 0 | 0 | 0 |

| LEVEL | | | ZONE | | ASSC TYPE | | ASPEN/CRANBERRY/SARSAPARILLA | | | | | | | | | | | | | | | | RESOURCE INVENTORY | | | |
|-------------|--|--|------|--|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--------------------|--|--|--|
| ECOSYM UNIT | | | A | | 3 | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | | | | | | | | | | | | | EDMONTON, ALBERTA | | | |
| | | | | | | | 10:55:12 APR 19, 1985 | | | | | | | | | | | | | | | | TABLE 6 | | | |
| | | | | | | | PAGE 1 | | | | | | | | | | | | | | | | | | | |
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| ENVIRONMENT/ SOILS-VEGETATION TABLES | | WHITE SPRUCE-ASPEN/CRANBERRY/SARSAPARILLA | | | | | | | | | | | | | | RESOURCE TABLE 7 | |
|--------------------------------------|--|---|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|
| TITLE : | | SW | | | | | | | | | | | | | | | |
| | | 4B | 4B | 4B | 4B | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L |
| | | LO22 W 4 | LO21 W 4 | LO09 W 4 | LO28 W 4 | LO54 W 4 | LO99 W 4 | LO102 W 4 | LO114 W 4 | LO125 W 4 | LO52 W 4 | LO52 W 4 | LO52 W 4 | LO52 W 4 | LO52 W 4 | LO52 W 4 | LO52 W 4 |
| | | 73L 12 | 73L 12 | 73L 12 | 73L 12 | 73L 11 | 73L 11 | 73L 11 | 73L 11 | 73L 11 | 73L 11 | 73L 11 | 73L 11 | 73L 11 | 73L 11 | 73L 11 | 73L 11 |
| PLOT NUMBER | | MEAN | | | | | | | | | | | | | | | |
| TOWNSHIP & RANGE | | | | | | | | | | | | | | | | | |
| MERIDIAN | | | | | | | | | | | | | | | | | |
| MAPSHEET | | | | | | | | | | | | | | | | | |
| PHYSIOGRAPHIC SUBREGION | | | | | | | | | | | | | | | | | |
| GEOMORPHIC SYSTEM | | | | | | | | | | | | | | | | | |
| ECOSECTION | | | | | | | | | | | | | | | | | |
| ELEVATION(MASL) | | 597.0 | 600 | 570 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 |
| SLOPE(%) | | 4.4 | 3 | 18 | 5 | 1 | 6 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| ASPECT(DEG) | | | 340 | 20 | 90 | 125 | 68 | 66 | 231 | 280 | 55 | 263 | 263 | 263 | 263 | 263 | 263 |
| ENVIRONMENT/SOILS : | | | | | | | | | | | | | | | | | |
| ECOLOGICAL MOISTURE REGIME | | | | | | | | | | | | | | | | | |
| NUTRIENT REGIME | | | | | | | | | | | | | | | | | |
| OVERLYING MATERIAL | | | | | | | | | | | | | | | | | |
| UNDERLYING MATERIAL | | | | | | | | | | | | | | | | | |
| EROSION/DEPOSITION | | | | | | | | | | | | | | | | | |
| SOIL SUBGROUP | | | | | | | | | | | | | | | | | |
| SOIL GREAT GROUP | | | | | | | | | | | | | | | | | |
| SOIL DRAINAGE | | | | | | | | | | | | | | | | | |
| SOLUM THICKNESS(CM) | | 55.7 | 31 | 85 | 51 | | | | | | | | | | | | |
| TYPE & DEPTH TO RESTRICT(CM) | | | | | | | | | | | | | | | | | |
| THICKNESS LFH(CM) | | 10.0 | 10 | 13 | 7 | | | | | | | | | | | | |
| PH-LFH | | 0.0 | | | | | | | | | | | | | | | |
| -A | | 4.8 | 6.0 | 4.0 | 4.4 | | | | | | | | | | | | |
| -B | | 5.4 | 5.5 | 6.0 | 4.6 | | | | | | | | | | | | |
| -C | | 6.7 | 7.0 | 7.0 | 6.0 | | | | | | | | | | | | |
| TEXTURE-A/1 | | SCL | LS | SL | | | | | | | | | | | | | |
| -B/2 | | SCL | S | CL | L | S | L | L | S | S | S | S | S | S | S | S | S |
| -C/3 | | | SCL | SCL | | | | | | | | | | | | | |
| COARSE FRAGMENTS-B(%) | | 70.0 | 70 | | | | | | | | | | | | | | |
| SEEPAGE(*) & MOTTILING(CM) | | | | | | | | | | | | | | | | | |
| ROOTING DEPTH(CM) | | 29.7 | 30 | 32 | 27 | | | | | | | | | | | | |
| VEGETATION : | | | | | | | | | | | | | | | | | |
| ASSOCIATION | | | | | | | | | | | | | | | | | |
| STAND AGE(YR) | | 75.4 | 46 | 86 | 90 | 99 | 34 | 53 | 93 | 78 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| CANOPY HEIGHT (M) | | 23.0 | 20 | 19 | 23 | 23 | 20 | 25 | 25 | 23 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| MEAN ANNUAL INCREMENT | | 0.0 | | | | | | | | | | | | | | | |
| STRATA COVERAGE(%) -A | | 52.5 | 60 | 65 | 25 | 40 | 60 | 45 | 65 | 30 | 70 | 65 | 65 | 65 | 65 | 65 | 65 |
| -B | | 32.0 | 95 | 15 | 25 | 40 | 5 | 25 | 25 | 10 | 25 | 55 | 55 | 55 | 55 | 55 | 55 |
| -C | | 36.5 | 35 | 35 | 65 | 40 | 5 | 65 | 50 | 25 | 35 | 10 | 10 | 10 | 10 | 10 | 10 |
| -G | | 4.4 | 12 | 1 | 25 | 1 | 0 | 1 | 1 | 2 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| -D | | 6.6 | 1 | 25 | 1 | 13 | 7 | 3 | 0 | 10 | 1 | 5 | 5 | 5 | 5 | 5 | 5 |
| -L | | 0.8 | 0 | 0 | 0 | 2 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SURFACE SUBST(%) -DEAD WOOD | | 12.7 | 30 | 20 | 20 | 7 | 10 | 10 | 5 | 15 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| -BEDROCK | | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -STONES | | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -MIN. SOIL | | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -ORGANIC | | 87.3 | 70 | 80 | 80 | 93 | 90 | 90 | 95 | 85 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| -OPEN WATER | | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| BIOMASS(KG/HA) -FORBS | | 32.1 | | | | 25.2 | 2.0 | 59.2 | 49.6 | 32.1 | 31.2 | 25.6 | 25.6 | 25.6 | 25.6 | 25.6 | 25.6 |
| -GRAMINOIDS | | 3.9 | | | | 3.6 | 0 | 3.2 | 15.6 | 3.9 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| -BROWSE | | 0.8 | | | | 0 | 0 | 0 | 2.8 | 0 | 0 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 |

| PRESENCE (%P) | | MEAN COVER (MC) | | PERCENT COVER (%C) | | SOCIALITY (S) | | VIGOR (V) | | TABLE 7 | | PAGE 3 | |
|----------------------------|--|-----------------|--|--------------------|--|---------------|--|-----------|--|---------|--|--------|--|
| AVERAGE | | 4B | | 4B | | 4B | | 4B | | 2L | | 2L | |
| VALUE | | LO22 | | LO21 | | LO09 | | LO28 | | LO54 | | LO25 | |
| NUMBER OF SPECIES PER PLOT | | 38 | | 33 | | 35 | | 48 | | 38 | | 37 | |
| SPECIES | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | |
| | | 1 2 | | | | | | | | | | | |

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|---------|----------|------|-----|---|---|--|--|---|---|---|---|---|---|
| 73 | EURH PUL | 20.0 | 0.2 | 1 | 2 | | | | | | | | |
| 74 | DICR FRA | 10.0 | 0.1 | | | | | | | 1 | 2 | | |
| 75 | LESC RAD | 10.0 | 0.1 | | | | | 1 | 2 | | | | |
| 76 | ONCO WAH | 10.0 | 0.1 | | | | | 1 | 2 | | | | |
| 77 | POLY JUN | 10.0 | 0.1 | | | | | | | | | | |
| L LAYER | | | | | | | | | | | | | |
| 78 | PELT APH | 30.0 | 0.3 | | | | | | | 1 | 2 | 1 | 2 |
| 79 | PELT CAN | 30.0 | 0.3 | | | | | | | 1 | 2 | 1 | 2 |
| 80 | CLAD FIM | 10.0 | 0.1 | | | | | 1 | 2 | | | | |
| 81 | CLAD GRA | 10.0 | 0.1 | | | | | | | 1 | 2 | | |
| 82 | HYPO PHY | 10.0 | 0.1 | | | | | | | | | | |

| LEVEL ZONE ASSC TYPE | | | BLACK SPRUCE/LABRADOR TEA/MOSS | | | | | | | | | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | | | | | | | 10:55:12 EDMONTON, ALBERTA APR 19, 1985 | | | RESOURCE INVENTORY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|------------------|------------|--------------------------------|------------|------------|----------------|------------|------------|------------|------------|------------|------------|--|------------|--|--|--|--|--|--|--|--|---|--|--|--------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| ECOSYM UNIT Sd | | | 1 | | | TABLE 8 PAGE 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PLOT NUMBER | AVERAGE VALUE | 2L L032 | 2L L035 | 2L L049 | 2L L051 | 2L L058 | 2L L065 | 2L L066 | 2L L067 | 2L L071 | 2L L072 | 2L L074 | 2L L076 | 2L L088 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| LEVEL | | | ZONE | | ASSC TYPE | | BLACK SPRUCE/LABRADOR TEA/MOSS | | | | | | | | | | | | | | | | RESOURCE INVENTORY | | | |
|----------------------------|--|--|---------|------|-----------|---|--|---|-------|---|-------|---|-------|---|-------|---|-------|---|-------|---|-------|---|--------------------|---|-------|---|
| ECOSYM UNIT | | | Sb | | 1 | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | | | | | | | | | | | | | EDMONTON, ALBERTA | | | |
| | | | | | | | 10:55:12 APR 19, 1985 | | | | | | | | | | | | | | | | TABLE 8 PAGE 2 | | | |
| PLOT NUMBER | | | AVERAGE | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | | 2L | |
| NUMBER OF SPECIES PER PLOT | | | VALUE | | L032 | | L035 | | L049 | | L051 | | L058 | | L065 | | L066 | | L067 | | L071 | | L072 | | L074 | |
| SPECIES | | | %P MC | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | |
| 38 RUBU CHA | | | 15.4 | 0.2 | | | | | | | | | | | | | | | | | | | | | | |
| 39 SPIR ROM | | | 15.4 | 0.2 | 1 | 2 | | | | | | | | | | | | | | | | | | | | |
| 40 TRIE BOR | | | 15.4 | 0.2 | | | | | | | | | | | | | | | | | | | | | | |
| 41 VIOL ADU | | | 15.4 | 0.2 | | | 1 | 2 | | | | | | | | | | | | | | | | | | |
| 42 ARCT UVA | | | 7.7 | 0.1 | | | 1 | 1 | | | | | | | | | | | | | | | | | | |
| 43 ASTE CON | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| 44 CHRY IOW | | | 7.7 | 0.1 | | | 1 | 2 | | | | | | | | | | | | | | | | | | |
| 45 CORA TRI | | | 7.7 | 0.1 | | | | | 1 | 2 | | | | | | | | | | | | | | | | |
| 46 DROS ROT | | | 7.7 | 0.1 | | | | | 1 | 2 | | | | | | | | | | | | | | | | |
| 47 GALI LAB | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| 48 HABE HYP | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| 49 HIER CAN | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| 50 LATH OCH | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| 51 MAIA CAN | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| 52 MENY TRI | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| 53 ORCH ROT | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| 54 ORTH SEC | | | 7.7 | 0.1 | | | | | 1 | 2 | | | | | | | | | | | | | | | | |
| 55 PARN PAL | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| 56 PENS ALB | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| 57 POTE PAL | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| 58 POTE TRI | | | 7.7 | 0.1 | | | 1 | 1 | | | | | | | | | | | | | | | | | | |
| 59 SANI MAR | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| 60 TARA OFF | | | 7.7 | 0.1 | | | 1 | 2 | | | | | | | | | | | | | | | | | | |
| 61 VACC CAE | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| VACC MYR | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| 62 ZIZI APT | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| G LAYER | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 63 CARE AQU | | | 38.5 | 0.9 | 5 | 2 | | | | | | | | | | | | | | | | | | | | |
| 64 CARE GYN | | | 23.1 | 0.3 | | | | | 3 | 2 | | | | | | | | | | | | | | | | |
| 65 JUNC BAL | | | 15.4 | 0.4 | | | | | 1 | 2 | | | | | | | | | | | | | | | | |
| 66 CARE PRA | | | 15.4 | 0.3 | | | | | | | | | | | | | | | | | | | | | | |
| 67 ELYM INN | | | 15.4 | 0.2 | | | | | | | | | | | | | | | | | | | | | | |
| 68 CALA INE | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| 69 CARE CAP | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| 70 CARE CHO | | | 7.7 | 0.1 | | | | | 1 | 2 | | | | | | | | | | | | | | | | |
| 71 CARE CON | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| 72 CARE LIM | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| 73 CARE ROS | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| 74 CARE VAG | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| 75 ORYZ ASP | | | 7.7 | 0.1 | | | | | | | | | | | | | | | | | | | | | | |
| D LAYER | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 76 AULA PAL | | | 92.3 | 12.8 | 1 | 2 | 25 | 2 | 7 | 2 | 1 | 2 | 25 | 2 | 50 | 2 | 16 | 2 | 1 | 2 | 6 | 2 | 13 | 2 | 10 | 2 |
| 77 PLEU SCH | | | 84.6 | 6.5 | 20 | 2 | 14 | 1 | 3 | 2 | | | | | | | | | | | | | | | | |
| 78 DICR UND | | | 69.2 | 2.2 | 2 | 2 | | | | | 1 | 2 | | | | | | | | | | | | | | |
| 79 TOME NIT | | | 61.5 | 9.5 | 1 | 2 | | | 8 | 2 | | | | | | | | | | | | | | | | |
| 80 SPHA FUS | | | 53.8 | 15.2 | | | | | | | | | | | | | | | | | | | | | | |
| 81 HYLO SPL | | | 53.8 | 3.9 | | | 14 | 1 | | | | | | | | | | | | | | | | | | |
| 82 POLY STR | | | 46.2 | 0.6 | | | | | | | | | | | | | | | | | | | | | | |

| PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | | | | | | | | | | | | | | | | |
|--|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|----|----|----|----|
| AVERAGE | | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L | 2L |
| VALUE | | L032 | L035 | L049 | L051 | L058 | L065 | L066 | L067 | L071 | L072 | L074 | L076 | L088 | | | | | |
| NUMBER OF SPECIES PER PLOT | | %C | SV | %C | SV | %C | SV | %C | SV | %C | SV | %C | SV | %C | SV | %C | SV | %C | SV |
| SPECIES | | %P | MC | | | | | | | | | | | | | | | | |
| 83 | POLY JUN | 38.5 | 0.5 | 1 | 1 | | | | | | | | | | | | | | |
| 84 | PTIL CRI | 30.8 | 0.4 | | | 1 | 2 | 1 | 2 | | | | | | | | | | |
| 85 | DICR POL | 23.1 | 0.2 | | | 1 | 2 | 1 | 2 | | | | | | | | | | |
| 86 | SPHA WAR | 15.4 | 3.9 | | | | | | | 15 | 2 | 36 | 2 | | | | | | |
| 87 | DREP VER | 15.4 | 0.3 | | | | | | | 3 | 2 | 1 | 2 | | | | | | |
| 88 | SPHA ANG | 15.4 | 0.2 | | | | | | | 1 | 2 | | | | | | | | |
| 89 | SPHA CUS | 7.7 | 5.9 | | | | | | | 13 | 2 | | | | | | | | |
| 90 | CALL GTG | 7.7 | 1.0 | | | | | | | | | | | | | | | | |
| 91 | PLAG CUS | 7.7 | 0.4 | | | | | | | | | | | | | | | | |
| 92 | BRYU PSE | 7.7 | 0.1 | | | | | | | | | | | | | | | | |
| 93 | DREP UNC | 7.7 | 0.1 | | | | | | | | | | | | | | | | |
| 94 | SPHA NEM | 7.7 | 0.1 | | | | | | | | | | | | | | | | |
| L LAYER | | | | | | | | | | | | | | | | | | | |
| 95 | CLAD MIT | 92.3 | 23.2 | 1 | 2 | 11 | 1 | 37 | 2 | 67 | 2 | 10 | 2 | 31 | 2 | 1 | 2 | 35 | 2 |
| 96 | PELT APH | 61.5 | 0.8 | 1 | 2 | 1 | 1 | | | | | | | | | | | | |
| 97 | CLAD GRA | 38.5 | 0.5 | | | | | | | | | | | | | | | | |
| 98 | CLAD FUR | 38.5 | 0.4 | | | 1 | 2 | | | | | | | | | | | | |
| 99 | CLAD COR | 23.1 | 0.2 | | | | | | | | | | | | | | | | |
| 100 | CLAD DEF | 23.1 | 0.2 | | | | | 1 | 1 | | | | | | | | | | |
| 101 | PELT CAN | 23.1 | 0.2 | | | 1 | 2 | | | | | | | | | | | | |
| 102 | PELT MAL | 15.4 | 0.2 | | | | | | | | | | | | | | | | |
| 103 | CLAD CEN | 7.7 | 0.1 | | | | | | | | | | | | | | | | |
| 104 | CLAD CON | 7.7 | 0.1 | | | | | | | | | | | | | | | | |
| 105 | CLAD FIM | 7.7 | 0.1 | | | | | | | | | | | | | | | | |
| 106 | CLAD MUL | 7.7 | 0.1 | | | | | | | | | | | | | | | | |
| 107 | CLAD PYX | 7.7 | 0.1 | | | | | | | | | | | | | | | | |
| 108 | CLAD UNC | 7.7 | 0.1 | | | | | | | | | | | | | | | | |
| 109 | PELT POL | 7.7 | 0.1 | | | | | | | | | | | | | | | | |

| TITLE : | | L | | 1 | | 4B | | 2L | | 2L | |
|------------------|--|------|--|------|--|------|--|------|--|------|--|
| PLOT NUMBER | | MEAN | | LO10 | | LO10 | | LO95 | | L103 | |
| TOWNSHIP & RANGE | | | | 6612 | | 64 8 | | 6410 | | | |
| MERIDIAN | | | | W | | 4 | | W | | 4 | |
| MAPSHEET | | | | 73L | | 73L | | 73L | | 73L | |
| | | | | 12 | | 11 | | 11 | | | |

| | | | | | | | | | | | |
|------------------------------|--|-------|------|------|------|--|--|--|--|--|--|
| PHYSIOGRAPHIC SUBREGION | | | | | | | | | | | |
| GEOMORPHIC SYSTEM | | | | | | | | | | | |
| ECOSECTION | | 593.3 | 580 | 600 | 600 | | | | | | |
| ELEVATION(MASL) | | 0.3 | 1 | 0 | 0 | | | | | | |
| SLOPE(%) | | | 190 | | | | | | | | |
| ASPECT(DEG) | | | | | | | | | | | |
| ENVIRONMENT/SOILS : | | | | | | | | | | | |
| ECOLOGICAL MOISTURE REGIME | | | SHD | M | M | | | | | | |
| NUTRIENT REGIME | | | O | | | | | | | | |
| OVERLYING MATERIAL | | | Ob | O | O | | | | | | |
| UNDERLYING MATERIAL | | | GF | | | | | | | | |
| EROSION/DEPOSITION | | | | | | | | | | | |
| SOIL SUBGROUP | | | TM | FI | FI | | | | | | |
| SOIL GREAT GROUP | | | F | M | M | | | | | | |
| SOIL DRAINAGE | | | VP | VP | VP | | | | | | |
| SOLUM THICKNESS(CM) | | 125.0 | 125 | | | | | | | | |
| TYPE & DEPTH TO RESTRICT(CM) | | | | | | | | | | | |
| THICKNESS LFH(CM) | | 90.0 | 90 | | | | | | | | |
| PH-LFH | | 0.0 | | | | | | | | | |
| -A | | 0.0 | | | | | | | | | |
| -B | | 0.0 | | | | | | | | | |
| -C | | 0.0 | | | | | | | | | |
| TEXTURE-A/1 | | | | | | | | | | | |
| -B/2 | | | | F | M | | | | | | |
| -C/3 | | | | | | | | | | | |
| COARSE FRAGMENTS-B(%) | | 0.0 | | | | | | | | | |
| SEEPAGE(*) & MOTTILING(CM) | | * | | | | | | | | | |
| ROOTING DEPTH(CM) | | 0.0 | | | | | | | | | |
| VEGETATION : | | | | | | | | | | | |
| ASSOCIATION | | | | | | | | | | | |
| STAND AGE(YR) | | 54.0 | 61 | L1 | L1 | | | | | | |
| CANOPY HEIGHT(M) | | 10.3 | 9 | 16 | 6 | | | | | | |
| MEAN ANNUAL INCREMENT | | 0.0 | | | | | | | | | |
| STRATA COVERAGE(%) -A | | 41.7 | 65 | 55 | 5 | | | | | | |
| -B | | 43.3 | 80 | 15 | 35 | | | | | | |
| -C | | 10.0 | 15 | 5 | 10 | | | | | | |
| -G | | 15.0 | 15 | 15 | 15 | | | | | | |
| -D | | 88.0 | 70 | 95 | 99 | | | | | | |
| -L | | 0.7 | 1 | 1 | 0 | | | | | | |
| SURFACE SUBST(%) -DEAD WOOD | | 3.3 | 3 | 5 | 2 | | | | | | |
| -BEDROCK | | 0.0 | 0 | 0 | 0 | | | | | | |
| -STONES | | 0.0 | 0 | 0 | 0 | | | | | | |
| -MIN SOIL | | 0.0 | 0 | 0 | 0 | | | | | | |
| -ORGANIC | | 93.0 | 96 | 90 | 93 | | | | | | |
| -OPEN WATER | | 3.7 | 1 | 5 | 5 | | | | | | |
| -GRAMINOID | | 7.2 | 6.8 | 7.6 | 7.6 | | | | | | |
| BIOMASS(KG/HA) -FORBS | | 18.8 | 13.6 | 24.0 | 24.0 | | | | | | |
| -GRAMINOID | | 0.0 | 0 | 0 | 0 | | | | | | |
| -BROWSE | | | | | | | | | | | |

RESOURCE INVENTORY
EDMONTON, ALBERTA
10:55:12 APR. 19. 1985
TAMARACK-BLACK SPRUCE/SEDE/MOSS
PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) TABLE 9 PAGE 1

| LEVEL | ZONE | ASSC | TYPE |
|----------------------------|----------|------------|--------------|
| ECOSYM UNIT | L | 1 | |
| PLOT NUMBER | | | |
| NUMBER OF SPECIES PER PLOT | | | |
| SPECIES | | | |
| A1 LAYER | | | |
| 1 | LARI LAR | 100.0 21.0 | 2 2 56 2 5 2 |
| 2 | PICE MAR | 33.3 1.7 | 5 2 |
| A2 LAYER | | | |
| | PICE MAR | 33.3 8.3 | 25 2 |
| | LARI LAR | 33.3 6.7 | 20 2 |
| E LAYER | | | |
| 3 | CETR PIN | 33.3 5.0 | 15 2 |
| 4 | USNE SOR | 33.3 5.0 | 15 2 |
| 5 | EVER MES | 33.3 3.3 | 10 2 |
| 6 | BRYO FUS | 33.3 1.7 | 5 2 |
| 7 | PARM SUL | 33.3 1.7 | 5 2 |
| B1 LAYER | | | |
| | LARI LAR | 66.7 8.3 | 5 2 |
| | PICE MAR | 66.7 5.0 | 10 2 |
| 8 | BETU PAP | 33.3 0.7 | |
| B2 LAYER | | | |
| 9 | LEDU GRO | 100.0 7.7 | 20 2 2 2 1 2 |
| | PICE MAR | 66.7 8.3 | 20 2 5 2 |
| 10 | BETU GLA | 66.7 5.3 | 15 2 1 2 |
| | LARI LAR | 66.7 2.3 | 2 2 |
| 11 | SALI LAS | 33.3 2.3 | |
| 12 | SALI SER | 33.3 1.7 | 5 2 |
| 13 | BETU PUM | 33.3 0.7 | 2 2 |
| 14 | RHAM ALN | 33.3 0.7 | 2 2 |
| 15 | ALNU TEN | 33.3 0.3 | 1 2 |
| 16 | LONI VIL | 33.3 0.3 | 1 2 |
| 17 | SALI ATH | 33.3 0.3 | 1 2 |
| 18 | SALI MYR | 33.3 0.3 | 1 2 |
| C LAYER | | | |
| 19 | OXYC MIC | 100.0 4.0 | 7 2 1 2 4 2 |
| 20 | SMIL TRI | 100.0 4.0 | 5 2 5 2 2 2 |
| 21 | CALT PAL | 66.7 2.7 | 3 2 5 2 |
| 22 | MITE NUD | 66.7 1.0 | 1 2 2 2 2 2 |
| 23 | VACC VIT | 66.7 1.0 | 2 2 1 2 1 2 |
| 24 | GALI LAB | 66.7 0.7 | 1 2 1 2 |
| 25 | STEL LON | 66.7 0.7 | 1 2 1 2 |
| 26 | PETA SAG | 33.3 1.0 | 3 2 1 2 |
| 27 | ANEM PAR | 33.3 0.3 | |
| 28 | AREN LAT | 33.3 0.3 | 1 2 |
| 29 | EPIL ANG | 33.3 0.3 | 1 2 |
| 30 | EQUI ARV | 33.3 0.3 | 1 2 |
| 31 | HABE HYP | 33.3 0.3 | 1 2 |
| 32 | ORTH SEC | 33.3 0.3 | 1 2 |
| 33 | PARN PAL | 33.3 0.3 | 1 2 |
| 34 | POLY AMP | 33.3 0.3 | 1 2 |
| 35 | POTE PAL | 33.3 0.3 | 1 2 |
| 36 | PYRO ASA | 33.3 0.3 | 1 2 |

| LEVEL | | | ZONE | | ASSC TYPE | | TAMARACK-BLACK SPRUCE/SEDGE/MOSS | | | | | | | | | | RESOURCE INVENTORY | | |
|----------------------------|------|-----|---------|------|-----------|---|--|---|-------|---|-------|---|-------|--|-------|--|--------------------|--|--|
| ECOSYM UNIT | | | L | | 1 | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | | | | | | | EDMONTON, ALBERTA | | |
| | | | | | | | 10:55:12 APR 19, 1985 | | | | | | | | | | TABLE 9 PAGE 2 | | |
| | | | | | | | | | | | | | | | | | | | |
| PLOT NUMBER | | | AVERAGE | | 4B | | 2L | | 2L | | | | | | | | | | |
| | | | VALUE | | LO10 | | LO95 | | LO103 | | | | | | | | | | |
| NUMBER OF SPECIES PER PLOT | | | 32.0 | | 32 | | 28 | | 36 | | | | | | | | | | |
| SPECIES | | | %P MC | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | %C SV | | | | |
| 37 | RUBU | ACA | 33.3 | 0.3 | | | | | | | 1 | 2 | | | | | | | |
| 38 | RUME | OCC | 33.3 | 0.3 | | | | | | | 1 | 2 | | | | | | | |
| 39 | SCUT | GAL | 33.3 | 0.3 | | | | | | | 1 | 2 | | | | | | | |
| G LAYER | | | | | | | | | | | | | | | | | | | |
| 40 | CARE | AQU | 100.0 | 6.7 | 15 | 2 | 4 | 2 | 1 | 2 | | | | | | | | | |
| 41 | CALA | CAN | 66.7 | 0.7 | | | 10 | 2 | | | 1 | 2 | | | | | | | |
| 42 | CARE | GYN | 33.3 | 3.3 | | | | | | | 6 | 2 | | | | | | | |
| 43 | CARE | DIS | 33.3 | 2.0 | | | | | | | 6 | 2 | | | | | | | |
| 44 | CARE | PAU | 33.3 | 2.0 | | | | | | | | | | | | | | | |
| 45 | CARE | PRA | 33.3 | 1.7 | | | 5 | 2 | | | 1 | 2 | | | | | | | |
| 46 | DESC | CAE | 33.3 | 0.3 | | | | | | | | | | | | | | | |
| D LAYER | | | | | | | | | | | | | | | | | | | |
| 47 | AULA | PAL | 100.0 | 6.3 | 10 | 2 | 8 | 2 | | | 1 | 2 | | | | | | | |
| 48 | SPHA | FUS | 66.7 | 41.7 | 60 | 2 | | | 65 | 2 | | | | | | | | | |
| 49 | TOME | NIT | 66.7 | 14.0 | | | 37 | 2 | | | 5 | 2 | | | | | | | |
| 50 | POLY | STR | 66.7 | 3.3 | 5 | 2 | | | | | 5 | 2 | | | | | | | |
| 51 | PLAG | ELL | 66.7 | 1.7 | | | 1 | 2 | | | 4 | 2 | | | | | | | |
| 52 | HYPN | PRA | 33.3 | 6.3 | | | 19 | 2 | | | | | | | | | | | |
| 53 | SPHA | WAR | 33.3 | 5.3 | | | 16 | 2 | | | | | | | | | | | |
| 54 | DREP | ADU | 33.3 | 2.7 | | | | | | | 8 | 2 | | | | | | | |
| 55 | CALL | GIG | 33.3 | 0.3 | | | 1 | 2 | | | | | | | | | | | |
| 56 | HELO | BLA | 33.3 | 0.3 | 1 | 2 | | | | | | | | | | | | | |
| 57 | HYLO | SPL | 33.3 | 0.3 | | | 1 | 2 | | | | | | | | | | | |
| 58 | MYLI | ANO | 33.3 | 0.3 | 1 | 2 | | | | | | | | | | | | | |
| L LAYER | | | | | | | | | | | | | | | | | | | |
| 59 | CLAD | MIT | 66.7 | 0.7 | 1 | 2 | 1 | 2 | | | | | | | | | | | |
| 60 | PELT | APH | 33.3 | 0.3 | | | | | | | 1 | 2 | | | | | | | |
| 61 | PELT | HOR | 33.3 | 0.3 | 1 | 2 | | | | | | | | | | | | | |
| 62 | PELT | POL | 33.3 | 0.3 | 1 | 2 | | | | | | | | | | | | | |

| PLOT NUMBER TOWNSHIP & RANGE MERIDIAN MAPSHEET | MEAN | 4B | | | | 4B | | | | 2L | | | | 2L | | | |
|---|-------|---------------------|---------------------|---------------------|-----------|----------|-----------|-----------|-----------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | | LO08 6612 W 4 | LO12 6612 W 4 | LO20 6612 W 4 | SHG PM | SHD E | SHD GF | SHG GF | SHG PM | LO33 64 9 W 4 | LO43 64 9 W 4 | LO86 64 9 W 4 | LO81 64 9 W 4 | LO33 64 9 W 4 | LO43 64 9 W 4 | LO86 64 9 W 4 | LO81 64 9 W 4 |
| PHYSIOGRAPHIC SUBREGION | | 73L 12 | 73L 12 | 73L 12 | | | | | | 73L 11 | 73L 11 | 73L 11 | 73L 11 | 73L 11 | 73L 11 | 73L 11 | 73L 11 |
| GEOMORPHIC SYSTEM | | | | | | | | | | | | | | | | | |
| ECOSECTION | 588.6 | 580 | 570 | 570 | | | | | | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 |
| ELEVATION(MASL) | 0.4 | 0 | 1 | 1 | | | | | | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| SLOPE(%) | | | 248 | | | | | | | 360 | | | | 360 | | | |
| ASPECT(DEG) | | | | | | | | | | | | | | | | | |
| ENVIRONMENT/SOILS : | | | | | | | | | | | | | | | | | |
| ECOLOGICAL MOISTURE REGIME | | PM | SHD | SHD | SHG | SHD | SHD | SHG | SHG | HD | HD | HD | HD | HD | HD | HD | HD |
| NUTRIENT REGIME | | PM | E | Obv | GF | GF | GF | GF | GF | O | O | O | O | O | O | O | O |
| OVERLYING MATERIAL | | GF | GF | GF | GF | GF | GF | GF | GF | | | | | | | | |
| UNDERLYING MATERIAL | | GF | GF | GF | GF | GF | GF | GF | GF | | | | | | | | |
| EROSION/DEPOSITION | | TY | T | R | ME | ME | ME | ME | ME | TY | TY | TY | TY | TY | TY | TY | TY |
| SOIL SUBGROUP | | F | M | H | H | H | H | H | H | M | M | M | M | M | M | M | M |
| SOIL GREAT GROUP | | VP | VP | VP | VP | VP | VP | VP | VP | VP | VP | VP | VP | VP | VP | VP | VP |
| SOIL DRAINAGE | | | | | | | | | | | | | | | | | |
| SOLUM THICKNESS(CM) | 27.0 | 5 | 60 | 16 | | | | | | | | | | | | | |
| TYPE & DEPTH TO RESTRICT(CM) | | | | | | | | | | | | | | | | | |
| THICKNESS LFH(CM) | 11.0 | 5 | 15 | 13 | | | | | | | | | | | | | |
| PH-LFH | 0.0 | | | | | | | | | | | | | | | | |
| -A | 0.0 | | | | | | | | | | | | | | | | |
| -B | 0.0 | | | | | | | | | | | | | | | | |
| -C | 0.0 | | | | | | | | | | | | | | | | |
| TEXTURE-A/1 | | | | | | | | | | | | | | | | | |
| -B/2 | | | | | | | | | | | | | | | | | |
| -C/3 | | | | | | | | | | | | | | | | | |
| COARSE FRAGMENTS-B(%) | 0.0 | | | | | | | | | | | | | | | | |
| SEEPAGE(*) & MOTTILING(CM) | | * | * | * | | | | | | | | | | | | | |
| ROOTING DEPTH(CM) | 31.0 | | 30 | 32 | | | | | | | | | | | | | |
| VEGETATION : | | | | | | | | | | | | | | | | | |
| ASSOCIATION | | B2 | B2 | B2 | B2 | B2 | B2 | B2 | B2 | B2 | B2 | B2 | B2 | B2 | B2 | B2 | B2 |
| STAND AGE(YR) | 0.0 | | | | | | | | | | | | | | | | |
| CANOPY HEIGHT(M) | 0.0 | | | | | | | | | | | | | | | | |
| MEAN ANNUAL INCREMENT | 0.0 | | | | | | | | | | | | | | | | |
| STRATA COVERAGE(%) -A | 1.0 | 25 | 80 | 15 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -B | 34.3 | 10.7 | 10 | 25 | 30 | 1 | 3 | 5 | | | | | | | | | |
| -C | 75.7 | 90 | 90 | 55 | 75 | 60 | 95 | 65 | | | | | | | | | |
| -D | 15.0 | 0 | 35 | 15 | 5 | 0 | 15 | 35 | | | | | | | | | |
| -L | 0.3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | | | | | | | | | |
| SURFACE SUBST(%) -DEAD WOOD | 4.9 | 0 | 30 | 2 | 1 | 0 | 0 | 0 | | | | | | | | | |
| -BEDROCK | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | |
| -STONES | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | |
| -MIN. SOIL | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | |
| -ORGANIC | 86.9 | 99 | 70 | 98 | 74 | 74 | 98 | 95 | | | | | | | | | |
| -OPEN WATER | 8.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | |
| -FORBS | 4.6 | | | | | | | | | | | | | | | | |
| -GRAMINOIDS | 174.0 | | | | | | | | | | | | | | | | |
| -BROWSE | 128.6 | | | | | | | | | | | | | | | | |

| LEVEL ZONE ASSC TYPE | | | | WILLOW/SEDGE | | | | | | | | | | RESOURCE INVENTORY | | | | | | | | | |
|--------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--------------------|--|--|--|--|--|--|--|--|--|
| ECOSYM UNIT B 2 | | | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | | | | | | | EDMONTON, ALBERTA | | | | | | | | | |
| | | | | 10:55:12 APR 19, 1985 | | | | | | | | | | TABLE 11 PAGE 2 | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
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| ECOSYSTEMATIC UNITS | | | | | | | | | | | | | | L | | | | B | |
|--|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|----|------|-----|------|----------|
| P | P | P | A | A | A | A | A | A | SW | Sb | L | L | L | L | L | L | L | L | L |
| 2 | 3 | 3 | 1a | 1b | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| PRESENCE CLASS AND MEAN SPECIES SIGNIFICANCE | | | | | | | | | | | | | | | | | | | |
| SPECIES | | | | | | | | | | | | | | | | | | | |
| ABIE BAL | I | 0.1 | II | 0.4 | III | 1.1 | III | 0.6 | I | 0.2 | I | 0.2 | I | 4.5 | II | 0.2 | | | I 0.1 |
| ACHI MIL | | | | | | | | | | | | | | | | | | | I 0.1 |
| ACHI SIB | | | | | | | | | | | | | | | | | | | |
| ACTA RUB | | | | | | | | | | | | | | | | | | | |
| AGRO SCA | | | | | | | | | | | | | | | | | | | II 0.6 |
| AGRO STO | | | | | | | | | | | | | | | | | | | I 0.3 |
| AGRO TRA | | | | | | | | | | | | | | | | | | | I 0.7 |
| ALNU CRI | III | 0.8 | V | 15.8 | III | 3.4 | II | 1.9 | II | 4.0 | I | 0.5 | II | 2.1 | | | | | II 1.4 |
| ALNU TEN | | | | | | | | | | | | | | | | | | | I 2.1 |
| AMBL SER | | | | | | | | | | | | | | | | | | | |
| AMEL ALN | IV | 0.6 | II | 0.5 | II | 1.1 | IV | 2.3 | III | 4.2 | III | 2.8 | II | 0.7 | | | II | 1.6 | |
| ANDR POL | | | | | | | | | | | | | | | | | | | |
| ANEM PAR | | | | | | | | | | | | | | | | | | | |
| ANEM PAT | III | 0.8 | I | 0.2 | | | | | | | | | | | | | | | |
| ANTE NEG | II | 0.3 | I | 0.2 | | | | | | | | | | | | | | | |
| ARAL NUD | | | | | | | | | | | | | | | | | | | |
| ARCT UVA | V | 8.4 | V | 5.4 | III | 0.6 | II | 0.3 | I | 0.1 | IV | 7.0 | IV | 9.2 | V | 12.1 | | I | 0.2 |
| AREN LAT | | | | | | | | | | | | | | | | | | | |
| ASTE CIL | I | 0.1 | II | 0.4 | IV | 2.4 | V | 1.8 | V | 2.3 | V | 2.5 | V | 1.5 | II | 0.2 | I | 0.2 | I 0.1 |
| ASTE CON | | | | | | | | | | | | | | | | | | | |
| ASTE PUN | | | | | | | | | | | | | | | | | | | I 0.4 |
| ASTR FRI | | | | | | | | | | | | | | | | | | | |
| ASTR OCC | | | | | | | | | | | | | | | | | | | |
| AULA PAL | | | | | | | | | | | | | | | | | | | |
| BETU GLA | | | | | | | | | | | | | | | | | | | |
| BETU OCC | | | | | | | | | | | | | | | | | | | |
| BETU PAP | I | 0.3 | II | 1.3 | I | 1.7 | III | 2.8 | II | 1.7 | I | 0.1 | I | 0.1 | II | 1.9 | II | 0.8 | II 1.4 |
| BETU PUM | | | | | | | | | | | | | | | | | | | |
| BRAC CAM | | | | | | | | | | | | | | | | | | | |
| BRAC SAL | | | | | | | | | | | | | | | | | | | II 0.9 |
| BRAC STA | | | | | | | | | | | | | | | | | | | I 1.4 |
| BROM CIL | | | | | | | | | | | | | | | | | | | I 0.1 |
| BRYO FUS | I | 0.6 | I | 1.2 | | | | | | | | | | | | | | | II 4.3 |
| BRYO PSE | | | | | | | | | | | | | | | | | | | |
| CALA CAN | | | | | | | | | | | | | | | | | | | |
| CALA INE | I | 0.6 | I | 1.2 | II | 0.4 | III | 1.6 | I | 2.5 | I | 0.9 | II | 3.6 | IV | 0.7 | III | 12.9 | III 12.9 |
| CALL GIG | I | 0.1 | III | 0.7 | II | 0.3 | II | 0.2 | III | 1.5 | V | 1.5 | II | 0.7 | I | 0.1 | I | 1.6 | I 0.3 |
| CALT PAL | | | | | | | | | | | | | | | | | | | |
| CAMP ROT | | | | | | | | | | | | | | | | | | | |
| CAMP STE | | | | | | | | | | | | | | | | | | | |
| CARE AQU | | | | | | | | | | | | | | | | | | | |
| CARE ATH | | | | | | | | | | | | | | | | | | | |
| CARE BRU | V | 0.9 | II | 0.4 | III | 0.6 | | | I | 0.1 | | | | | I | 0.2 | I | 0.2 | IV 3.9 |
| CARE CAP | | | | | | | | | | | | | | | | | | | |
| CARE CHO | | | | | | | | | | | | | | | | | | | |
| CARE CON | | | | | | | | | | | | | | | | | | | |
| CARE DIS | | | | | | | | | | | | | | | | | | | |
| CARE GYN | | | | | | | | | | | | | | | | | | | |
| CARE INT | | | | | | | | | | | | | | | | | | | |

| ECOSYSTEMATIC UNITS | | P | P | A | A | A | A | A | SW | Sb | L | L | B |
|--|---------|--------|---------|---------|---------|---------|---------|--------|--------|--------|--------|---------|---------|
| | | 2 | 3 | 1a | 1b | 2 | 3 | 1 | 1 | 1 | 1 | 2 | 2 |
| SPECIES | | | | | | | | | | | | | |
| PRESENCE CLASS AND MEAN SPECIES SIGNIFICANCE | | | | | | | | | | | | | |
| CARE LIM | | | | I 0.1 | | | | | | I 0.1 | II 2.0 | II 1.2 | I 4.3 |
| CARE PAU | | | | | | I 0.1 | | | | | | I 0.2 | |
| CARE PEC | | | | | | | | | | | | | |
| CARE PRA | | | | | | | | | | | | | |
| CARE RIC | II 0.4 | II 0.3 | | II 0.3 | I 0.1 | I 0.1 | | | | I 0.3 | II 1.7 | III 6.8 | II 12.1 |
| CARE ROS | | | | | | | | | | I 0.1 | | | I 6.4 |
| CARE VAG | | | | | | | | | | I 0.1 | | | |
| CETR PIN | | | | I 0.6 | I 0.6 | I 0.5 | | | I 0.1 | | | | |
| CETR HAL | I 1.3 | I 0.4 | | II 1.1 | II 1.1 | I 0.5 | | | II 1.5 | | | | |
| CETR PIN | I 1.3 | I 0.8 | | I 0.6 | II 1.7 | | | | II 1.5 | I 0.1 | II 5.0 | I 1.0 | II 1.4 |
| CHRY IOW | | | | | | | | | | | | | I 0.1 |
| CICU BUL | | | | | | | | | | | | | |
| CIRS ARV | | | | I 0.1 | | | | | | I 0.1 | | | |
| CLAD CEN | | | | I 0.1 | | | | | | I 0.1 | | | |
| CLAD CLO | | | | I 0.1 | | | | | | | | | |
| CLAD COC | I 0.1 | | | I 0.1 | | | | | | | | | |
| CLAD CON | | | | | | | | | | I 0.1 | | | |
| CLAD COR | | | | | | | | | | II 0.2 | | | |
| CLAD CRI | I 0.1 | I 0.1 | | I 0.1 | | | | | | II 0.2 | | | |
| CLAD DEF | II 0.3 | I 0.1 | | | | | | | | I 0.1 | | | |
| CLAD FIM | | | | | | | | | | | | | |
| CLAD FUR | III 0.6 | II 0.4 | | | | | | | | II 0.4 | | | |
| CLAD GRA | IV 1.4 | | | II 0.2 | | | | | | II 0.5 | | | |
| CLAD MIT | IV 24.3 | IV 2.8 | | I 0.1 | | | | | | V 23.2 | IV 0.7 | I 0.2 | |
| CLAD MUL | | | | | | | | | | I 0.1 | | | |
| CLAD PYX | | | | | | | | | | I 0.1 | | | |
| CLAD RAN | I 3.8 | | | | | | | | | | | | |
| CLAD UNC | II 0.3 | | | | | | | | | I 0.1 | | | |
| CLAD VER | | | | I 0.1 | | | | | | | | | |
| CLIM DEN | | | | | | | | | | | | | |
| COMA PAL | II 0.4 | | | I 0.1 | | | | | | | I 0.2 | I 0.7 | |
| CORA TRI | | | | | | | | | | | | | |
| CORN CAN | II 0.6 | IV 2.8 | | IV 3.4 | V 5.8 | V 5.7 | V 1.8 | V 5.9 | I 0.1 | | | | |
| CORN STO | | | | III 1.4 | II 0.7 | II 1.5 | II 0.4 | II 1.0 | I 0.2 | | | | |
| CORY COR | | | | I 0.1 | II 8.3 | I 0.4 | III 2.3 | | | | | | I 0.1 |
| DESC CAE | | | | | | | | | | | II 0.3 | | I 0.1 |
| DICR FRA | II 0.4 | II 0.4 | | | | | | I 0.1 | | II 0.2 | | | |
| DICR POL | | | | | | | | | | IV 2.2 | | | |
| DICR UND | | | | | | | | | | | | | |
| DISP TRA | | | | | | | | | | | | | |
| DREP ADU | | | | | II 0.3 | II 0.3 | II 0.5 | II 0.4 | | | II 2.7 | | I 1.4 |
| DREP POL | | | | | | | | | | | | | I 11.4 |
| DREP UNC | | | | | | | | | | I 0.1 | | | I 3.6 |
| DREP VER | | | | | | | | | | I 0.3 | | | |
| DROS ROT | | | | | | | | | | I 0.1 | | | |
| ELYM INN | III 1.1 | IV 4.1 | III 1.8 | III 3.9 | III 1.0 | II 0.5 | | | | I 0.2 | | | |
| EPIL ANG | II 0.3 | IV 2.3 | IV 1.4 | V 9.0 | V 6.6 | III 7.5 | | | | II 0.2 | II 0.3 | I 0.2 | II 0.3 |
| EPIL GLA | | | | | | | | | | | | | I 0.1 |
| EPIL PAL | | | | | | | | | | | | | I 0.1 |

| ECOSYSTEMATIC UNITS | | P | P | A | A | A | A | A | SW | Sb | L | L | B | | | | | | | | | | |
|--|--|-----|-----|-----|-----|----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|------|-----|-----|
| | | 2 | 3 | 1a | 1b | 2 | 3 | 3 | 1 | 1 | 1 | 2 | 2 | | | | | | | | | | |
| SPECIES | | | | | | | | | | | | | | | | | | | | | | | |
| PRESENCE CLASS AND MEAN SPECIES SIGNIFICANCE | | | | | | | | | | | | | | | | | | | | | | | |
| EQUI ARV | | I | 0.2 | III | 0.7 | II | 0.3 | II | 0.3 | I | 0.2 | III | 0.5 | II | 1.1 | II | 0.3 | I | 0.2 | I | 0.1 | I | 0.1 |
| EQUI FLU | | | | | | | | | | | | | | | | | | IV | 1.0 | I | 0.1 | I | 0.1 |
| EQUI PRA | | | | | | | | | | | | | | | | | | | | | | | |
| EQUI SCI | | | | | | | | | | | | | | | | | | | | | | | |
| EQUI SYL | | I | 0.1 | I | 0.1 | | | | | | | | | | | | | | | | | | |
| ERIG GLA | | I | 0.1 | | | | | | | | | | | | | | | | | | | | |
| ERIO CHA | | | | | | | | | | | | | | | | | | | | | | | |
| ERIO VIR | | | | | | | | | | | | | | | | | | | | | | | |
| EURH PUL | | | | | | | | | | | | | | | | | | | | | | | |
| EVER MES | | I | 0.6 | I | 0.4 | I | 0.6 | II | 1.1 | I | 0.5 | I | 0.5 | I | 0.2 | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| FRAG VIR | | II | 0.3 | III | 1.4 | V | 1.9 | V | 2.4 | V | 1.1 | V | 1.2 | V | 1.4 | II | 0.3 | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| GALI BOR | | II | 0.3 | I | 0.4 | IV | 0.8 | V | 1.3 | IV | 0.9 | V | 1.3 | IV | 1.0 | II | 0.2 | IV | 0.7 | III | 0.6 | III | 0.7 |
| GALI LAB | | | | | | | | | | | | | | | | | | | | | | | |
| GALI TRI | | | | | | | | | | | | | | | | | | | | | | | |
| GENT AMA | | | | | | | | | | | | | | | | | | | | | | | |
| GEOC LIV | | | | I | 0.1 | I | 0.1 | I | 0.1 | I | 0.1 | I | 0.2 | II | 0.4 | | | | | | | | |
| GEUM ALE | | | | I | 0.1 | | | | | | | | | | | | | | | | | | |
| GEUM ALL | | I | 0.2 | I | 0.1 | | | | | | | | | | | | | | | | | | |
| GEUM MAC | | | | | | I | 0.1 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| HABE HYP | | | | | | | | | | | | | | | | | | | | | | | |
| HALE DEF | | | | I | 0.1 | | | | | | | | | | | | | | | | | | |
| HAPL MIC | | | | I | 0.1 | | | | | | | | | | | | | | | | | | |
| HEDY ALP | | I | 0.1 | | | I | 0.1 | I | 0.1 | I | 0.1 | | | | | | | | | | | | |
| HELO BLA | | | | | | | | | | | | | | | | | | | | | | | |
| HERA LAN | | | | | | I | 0.1 | | | | | | | | | | | | | | | | |
| HIER CAN | | II | 0.5 | I | 0.2 | | | | | | | | | | | | | | | | | | |
| HIER ODO | | | | | | | | | | | | | | | | | | | | | | | |
| HYLO SPL | | I | 0.1 | I | 0.2 | | | | | I | 0.1 | | | III | 2.1 | III | 3.9 | II | 0.3 | I | 0.6 | I | 0.7 |
| HYPN PRA | | | | | | | | | | | | | | | | | | II | 6.3 | I | 1.0 | I | 0.7 |
| HYPN PHY | | I | 1.3 | | | I | 0.6 | I | 0.6 | | | | | I | 0.1 | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| JBRA CCA M | | | | | | | | | | | | | | | | | | | | | | | |
| JUNC BAL | | | | I | 0.1 | | | | | | | | | | | | I | 0.4 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| LARI LAR | | I | 0.1 | I | 0.1 | | | | | | | | | | | | | | | | | | |
| LATH OCH | | II | 3.9 | IV | 7.4 | IV | 1.9 | II | 2.6 | III | 2.5 | V | 1.5 | III | 1.1 | III | 7.2 | V | 21.0 | V | 11.8 | | |
| LEDU GRO | | | | | | | | | | | | | | | | | | | | | | | |
| LESC RAD | | | | | | | | | | | | | | | | | | | | | | | |
| LILI PHI | | | | | | | | | | | | | | | | | | | | | | | |
| LINN BOR | | III | 0.5 | V | 4.5 | V | 7.8 | IV | 4.1 | V | 2.7 | IV | 2.2 | V | 2.7 | III | 0.9 | | | | | | |
| LONI DIO | | I | 0.1 | I | 0.1 | I | 0.1 | II | 0.9 | III | 0.6 | III | 1.4 | II | 0.4 | | | | | | | | |
| LONI INV | | I | 0.1 | I | 0.1 | II | 0.9 | II | 2.8 | II | 3.0 | II | 0.8 | IV | 5.0 | I | 0.1 | | | | | | |
| LONI VIL | | | | | | | | | | | | | | | | | | | | | | | |
| LUZU PAR | | | | | | | | | | | | | | | | | | | | | | | |
| LYCO ANN | | | | | | | | | | | | | | | | | | | | | | | |
| LYCO COM | | I | 0.1 | | | | | | | | | | | | | | | | | | | | |
| LYCO OBS | | | | | | | | | | | | | | | | | | | | | | | |
| LYSI THY | | | | | | | | | | | | | | | | | | | | | | | |

| ECOSYSTEMATIC UNITS | | P ₂ | P ₃ | A _{1a} | A _{1b} | A ₂ | A ₃ | SW ₁ | Sb ₁ | L ₁ | L ₂ | B ₂ |
|--|---------|----------------|----------------|-----------------|-----------------|----------------|----------------|-----------------|-----------------|----------------|----------------|----------------|
| PRESENCE CLASS AND MEAN SPECIES SIGNIFICANCE | | | | | | | | | | | | |
| SPECIES | | | | | | | | | | | | |
| MATA CAN | V 1.9 | V 1.9 | V 2.7 | V 2.0 | V 1.4 | V 1.6 | V 1.3 | I 0.1 | | | I 9.0 | I 0.1 |
| MEES TRI | | | | | | | | | | | III 1.0 | I 0.1 |
| MENT ARV | | | | | | | | | | | | |
| MENY TRI | | | | | | | | | | | | |
| MERT PAN | | | | | | | | | | | | |
| MITE NUD | | | | | | | | | | | | |
| MYLI AND | | | | | | | | | | | | |
| ONCO WAH | | | | | | | | | | | | |
| DRCH ROT | | | | | | | | | | | | |
| DRTH OBT | | | | | | | | | | | | |
| DRTH SEC | | | | | | | | | | | | |
| DRYZ ASP | | | | | | | | | | | | |
| DRYZ PUN | | | | | | | | | | | | |
| OSMO DEP | | | | | | | | | | | | |
| DYVC MIC | | | | | | | | | | | | |
| PARM FLA | I 1.3 | I 0.8 | I 0.6 | I 1.1 | I 0.5 | I 0.9 | II 2.0 | | | II 1.7 | I 1.0 | III 2.9 |
| PARM SUL | | | | | | | | | | | | I 0.1 |
| PARM FIM | | | | | | | | | | | | |
| PARM PAL | | | | | | | | | | | | |
| PELT APH | | | | | | | | | | | | |
| PELT APT | | | | | | | | | | | | |
| PELT CAN | I 0.1 | I 0.5 | I 0.1 | I 0.1 | | | | | | | | |
| PELT HOR | | | | | | | | | | | | |
| PELT MAL | II 0.5 | I 0.2 | I 0.1 | | | | | | | | | |
| PELT POL | I 0.1 | | | | | | | | | | | |
| PENS ALB | II 0.3 | I 0.1 | IV 1.9 | V 1.7 | V 2.1 | V 0.9 | V 1.8 | II 0.4 | I 0.1 | II 0.3 | I 0.2 | I 0.1 |
| PETA PAL | | | | | | | | | | | | |
| PETA SAG | | | | | | | | | | | | |
| PHAC FRA | I 0.1 | II 0.4 | IV 1.9 | V 1.7 | V 2.1 | V 0.9 | V 1.8 | II 0.4 | I 0.1 | II 0.3 | I 0.2 | |
| PICE GLA | IV 2.6 | III 1.2 | III 3.9 | II 1.6 | III 3.0 | I 0.9 | V 25.0 | | | II 1.0 | I 0.2 | |
| PICE MAR | I 0.3 | | | | | | | | | | | |
| PINU BAN | V 26.8 | V 32.3 | I 0.1 | | I 0.1 | III 0.5 | I 0.9 | I 1.3 | | IV 8.3 | IV 4.4 | I 0.7 |
| PLAG CUS | | | | | | | | | | | | |
| PLAG DRU | | | | | | | | | | | | |
| PLAG ELL | | | | | | | | | | | | |
| PLAG MED | | | | | | | | | | | | |
| PLEU SCH | II 1.6 | V 4.8 | II 0.3 | II 0.2 | III 0.8 | II 0.5 | III 1.8 | V 6.5 | | IV 1.7 | I 1.0 | II 2.1 |
| POHL CRU | | | | | | | | | | | | I 0.1 |
| POLY AMP | | | | | | | | | | | | II 0.3 |
| POLY JUN | IV 2.0 | IV 0.6 | II 1.2 | | | | | | | II 0.3 | | |
| POLY LAP | | | | | | | | | | | | |
| POLY PAU | | | | | | | | | | | | |
| POLY STR | | | | | | | | | | | | |
| POPU BAL | | | | | | | | | | | | |
| POPU TRE | II 1.4 | V 5.4 | II 1.7 | III 2.8 | III 6.4 | III 2.5 | III 8.0 | | | | | III 2.0 |
| POTE PAL | | | | | | | | | | | | I 0.1 |
| POTE RIV | | | | | | | | | | | | |
| POTE TRI | III 0.5 | III 0.5 | I 0.1 | | | | | | | | | |
| PRUN PEN | | | | | | | | | | | | |

| ECOSYSTEMATIC UNITS | | P ₂ | P ₃ | A _{1a} | A _{1b} | A ₂ | A ₃ | SW ₁ | Sb ₁ | L ₁ | L ₂ | B ₂ |
|--|---------|----------------|----------------|-----------------|-----------------|----------------|----------------|-----------------|-----------------|----------------|----------------|----------------|
| PRESENCE CLASS AND MEAN SPECIES SIGNIFICANCE | | | | | | | | | | | | |
| SPECIES | | | | | | | | | | | | |
| PRUN VIR | | I 0.1 | III 0.6 | I 0.1 | I 0.6 | I 0.3 | I 0.2 | III 1.4 | II 0.4 | | | |
| PTIL CRI | | I 0.1 | III 0.6 | I 0.1 | I 0.1 | I 1.0 | I 1.4 | II 1.5 | | | | |
| PYLA POL | | I 0.8 | II 1.7 | III 2.8 | I 1.4 | V 1.7 | V 1.0 | III 0.8 | II 0.2 | II 0.3 | I 0.2 | I 0.3 |
| PYRO ASA | | II 0.3 | IV 1.7 | IV 1.4 | I 0.6 | | | | | | | |
| PYRO SEC | | | | | | | | | | | | |
| RAMA FAR | | | | | | I 0.5 | | I 1.0 | | | | |
| RAMA MIN | | | | | | I 0.1 | | | II 0.2 | II 0.7 | | I 0.7 |
| RHAM ALN | | | | | | | | | I 0.1 | | | I 0.1 |
| RHIZ PSE | | | | | | | | | | | | |
| RIBE GLA | | | | I 0.1 | I 0.2 | I 0.1 | I 0.1 | I 0.1 | | | | |
| RIBE HIR | | | | | | I 0.1 | | | | | | |
| RIBE LAC | | | | II 0.4 | I 0.2 | I 0.2 | I 0.3 | I 0.2 | I 0.1 | | I 0.2 | II 0.3 |
| RIBE OXY | | | | I 0.1 | I 0.1 | I 0.1 | I 0.3 | III 0.5 | | | | II 0.3 |
| RIBE TRI | | | | | | | | | | | | I 0.7 |
| RORR ISL | | | | | | | | | | | | I 0.1 |
| ROSA ACI | | | | | | | | | III 0.6 | | | |
| RUBU ACA | | | | | | | | | III 0.5 | II 0.3 | I 1.0 | I 0.1 |
| RUBU CHA | | | | | | | | | I 0.2 | | | |
| RUBU IDA | | II 0.4 | I 0.1 | II 0.2 | II 0.5 | IV 0.8 | II 0.3 | | | | | |
| RUBU PUB | | II 0.5 | IV 2.0 | V 3.9 | IV 2.5 | V 3.0 | IV 1.8 | | | | | I 0.1 |
| RUBU STR | | I 0.1 | | | | I 0.3 | | | | | I 0.2 | I 0.1 |
| RUME BRI | | | | | | | | | | | | |
| RUME OCC | | | | | | | | | | II 0.3 | | II 0.4 |
| SALI ATH | III 0.6 | II 0.9 | III 2.1 | IV 8.3 | II 4.5 | III 4.6 | II 1.7 | | | II 0.3 | | I 0.7 |
| SALI BEB | | | | | | | | | | I 0.2 | | I 0.7 |
| SALI CAN | | | | | | | | | | | III 0.6 | I 2.1 |
| SALI LAS | | | | | | | | | | | | |
| SALI MAC | | | | | | | | | | | | I 8.6 |
| SALI MYR | | | I 0.1 | | | | | | IV 2.6 | II 0.3 | I 0.2 | |
| SALI PED | | | | | | | | | II 0.5 | III 1.0 | I 7.9 | |
| SALI PLA | | | | | | | | | I 0.4 | I 3.0 | II 12.9 | |
| SALI SER | | | | | | | | | | II 1.7 | | I 2.1 |
| SANI MAR | | | | | | | | | I 0.1 | | | |
| SARR PUR | | | | I 0.1 | | | | | | | II 0.4 | |
| SCHI PUR | | | | | | | | | | | | |
| SCOR TUR | | I 0.2 | II 0.2 | | | | | | | | I 0.2 | |
| SCUT GAL | | | | | | | | | | | | |
| SHEP CAN | | | | | | | | | | | | |
| SMIL TRI | II 0.9 | I 0.4 | I 0.1 | I 0.1 | I 0.1 | | | | I 0.1 | | | I 0.1 |
| SOLI CAN | | | | | | | | | IV 1.4 | V 4.0 | IV 2.6 | I 0.1 |
| SOLI DEC | II 0.3 | I 0.1 | I 0.1 | | | | | | | | | I 0.1 |
| SPHA ANG | | | | | | | | | I 0.2 | | I 8.0 | |
| SPHA CUS | | | | | | | | | III 15.2 | IV 41.7 | I 1.2 | |
| SPHA FUS | | | | | | | | | I 5.9 | | | |
| SPHA NEM | | | | | | | | | | | | |
| SPHA RUS | | | | | | | | | | | | |
| SPHA WAR | | | | | | | | | I 3.9 | II 5.3 | I 0.2 | |
| SPIR ROM | | | | | | | | | I 0.2 | IV 0.7 | II 0.4 | II 0.3 |
| STEL LON | | | | | | | | | | | | |

| ECOSYSTEMATIC UNITS | P 2 | P 3 | A 1a | A 1b | A 2 | A 3 | SW 1 | Sb 1 | L 1 | L 2 | B 2 |
|---------------------|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| SPECIES | PRESENCE CLASS AND MEAN SPECIES SIGNIFICANCE | | | | | | | | | | |
| STEL MED | | | I 0.1 | | | | | | | | |
| STRE AMP | | | I 0.1 | | | | | | | | |
| SYMP ALB | | I 0.2 | III 1.0 | III 0.8 | II 0.5 | V 1.9 | IV 0.8 | | | | I 0.1 |
| TARA OFF | | | II 0.3 | II 0.3 | I 0.5 | I 0.2 | I 0.1 | I 0.1 | I 0.1 | | |
| THAL VEN | | | II 0.3 | II 0.3 | I 0.5 | | I 0.1 | I 0.1 | | | I 0.7 |
| THUI REC | | | | | | | | | | II 0.4 | I 0.1 |
| TOFI GLU | | | | | | | | IV 9.5 | IV 14.0 | IV 37.0 | I 0.1 |
| TOME NIT | I 0.1 | | I 0.1 | | | | | I 0.2 | | | |
| TRIE BOR | I 0.1 | II 0.4 | II 0.8 | III 0.6 | IV 0.8 | II 0.4 | II 0.4 | I 0.4 | | II 0.4 | I 0.1 |
| TRIG MAR | | | | | | | | | | | |
| URTI DIO | | | | | | | | | | | I 0.1 |
| USNE ALP | | | | | I 0.5 | | I 0.1 | | | | |
| USNE HIR | | | | | | | | | II 5.0 | | III 2.1 |
| USNE SOR | | | | | | | I 0.5 | | | | |
| USNE SUB | I 1.9 | | | | | | | | | | |
| VACC CAE | V 7.6 | V 12.5 | I 0.1 | II 0.3 | I 0.1 | | | I 0.1 | I 0.1 | I 0.2 | |
| VACC MYR | V 13.0 | V 15.9 | IV 5.9 | II 1.2 | I 0.5 | | | II 0.7 | IV 1.0 | II 0.4 | |
| VACC VIT | | | II 0.3 | II 0.4 | I 0.2 | | | V 4.8 | | | I 0.1 |
| VALE DIO | | I 0.1 | IV 2.0 | IV 9.8 | IV 11.3 | V 9.1 | V 13.8 | | | | |
| VIBU EDU | | | I 0.1 | I 0.1 | | | | | | | |
| VICE AME | | | III 0.6 | III 0.7 | III 0.6 | IV 0.7 | I 0.3 | | | | II 0.3 |
| VICI AME | II 0.4 | III 0.5 | III 0.6 | I 0.1 | I 0.1 | II 0.3 | | I 0.2 | | | |
| VIOL ADU | | I 0.1 | I 0.1 | II 0.2 | I 0.1 | I 0.2 | | | | | |
| VIOL REN | | | III 0.4 | I 0.1 | IV 0.8 | III 2.2 | II 0.6 | | | | |
| VIOL RUG | | | | | | | | | | | |
| XANT RAM | | | | | I 0.5 | | | | | | |
| ZIZI APT | | | | | | | | I 0.1 | | | |

ENVIRONMENT AND VEGETATION TABLES

EAST BEAVER LAKE PLOTS

RESOURCE INVENTORY

EDMONTON, ALBERTA

10:17:22 NOV 27, 1984

40 CODING ERRORS IN DATA SET

TOTAL NUMBER OF PLOTS IS 22

TOTAL NUMBER OF SPECIES IN EACH LAYER IS 7 10 14 14 34 57 14 29 10

| ENVIRONMENT/SOILS-VEGETATION TABLES | | PINE/BEARBERRY/LICHEN | | RESOURCE INVENTORY |
|-------------------------------------|---|-----------------------|------|--------------------|
| TITLE : | P | 2 | P | TABLE 1 |
| PLOT NUMBER | | MEAN | 4B | |
| TOWNSHIP & RANGE | | 6612 | LOO2 | |
| MERIDIAN | | W 4 | | |
| MAPSHEET | | | 73L | |
| | | | 12 | |
| PHYSIOGRAPHIC SUBREGION | | | | |
| GEOMORPHIC SYSTEM | | | | |
| ECOSECTION | | | | |
| ELEVATION(MASL) | | 530.0 | 530 | |
| SLOPE(%) | | 0.0 | 0 | |
| ASPECT(DEG) | | | | |
| ENVIRONMENT/SOILS : | | | | |
| ----- | | | | |
| ECOLOGICAL MOISTURE REGIME | | | X | |
| NUTRIENT REGIME | | | SM | |
| OVERLYING MATERIAL | | | Gfb | |
| UNDERLYING MATERIAL | | | M | |
| EROSION/DEPOSITION | | | | |
| SOIL SUBGROUP | | | E | |
| SOIL GREAT GROUP | | | DYB | |
| SOIL DRAINAGE | | | R | |
| SOLUM THICKNESS(CM) | | 55.0 | 55 | |
| TYPE & DEPTH TO RESTRICT(CM) | | | | |
| THICKNESS LFH(CM) | | 3.0 | 3 | |
| PH-LFH | | 0.0 | | |
| -A | | 4.2 | 4.2 | |
| -B | | 4.8 | 4.8 | |
| -C | | 5.0 | 5.0 | |
| TEXTURE -A/1 | | | SL | |
| -B/2 | | | SL | |
| -C/3 | | | S | |
| COARSE FRAGMENTS-B(%) | | 0.0 | | |
| SEEPAGE(+) & MOTTLING(CM) | | | | |
| ROOTING DEPTH(CM) | | 50.0 | 50 | |
| VEGETATION : | | | | |
| ----- | | | | |
| ASSOCIATION | | | P2 | |
| STAND AGE(YR) | | 36.0 | 36 | |
| CANOPY HEIGHT(M) | | 12.0 | 12 | |
| MEAN ANNUAL INCREMENT | | 0.0 | | |
| STRATA COVERAGE(%) -A | | 15.0 | 15 | |
| -B | | 75.0 | 75 | |
| -C | | 3.0 | 3 | |
| -G | | 5.0 | 5 | |
| -D | | 2.0 | 2 | |
| -L | | 30.0 | 30 | |
| SURFACE SUBST(%) -DEAD WOOD | | 1.0 | 1 | |
| -BEDROCK | | 0.0 | 0 | |
| -STONES | | 0.0 | 0 | |
| -MIN. SOIL | | 0.0 | 0 | |
| -ORGANIC | | 99.0 | 99 | |
| -OPEN WATER | | 0.0 | 0 | |
| BIOMASS(KG/HA) -FORBS | | 0.0 | | |
| -GRAMINOIDS | | 0.0 | | |
| -BROWSE | | 0.0 | | |

| LEVEL | | ZONE | | ASSC TYPE | | PINE/BEARBERRY/LICHEN | | | | RESOURCE INVENTORY | | | |
|----------------------------|--|------|--|-----------|--|--|--|---------|--|-----------------------|--|---|--|
| ECOSYM UNIT | | P | | 2 | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | EDMONTON, ALBERTA | | | |
| | | | | | | | | | | 10:17:22 NOV 27, 1984 | | | |
| | | | | | | | | | | TABLE 1 PAGE 1 | | | |
| PLOT NUMBER | | | | | | AVERAGE VALUE | | 48 LOO2 | | | | | |
| NUMBER OF SPECIES PER PLOT | | | | | | 38.0 | | 38 | | | | | |
| SPECIES | | | | | | %P | | MC | | %C SV | | | |
| A1 LAYER | | | | | | | | | | | | | |
| 1 PINU BAN | | | | | | 100.0 | | 5.0 | | 5 | | 2 | |
| 2 PICE GLA | | | | | | 100.0 | | 2.0 | | 2 | | 2 | |
| 3 PICE MAR | | | | | | 100.0 | | 2.0 | | 2 | | 2 | |
| A2 LAYER | | | | | | | | | | | | | |
| PICE GLA | | | | | | 100.0 | | 5.0 | | 5 | | 2 | |
| 4 BETU PAP | | | | | | 100.0 | | 2.0 | | 2 | | 2 | |
| 5 POPU TRE | | | | | | 100.0 | | 2.0 | | 2 | | 2 | |
| A3 LAYER | | | | | | | | | | | | | |
| 6 USNE SUB | | | | | | 100.0 | | 15.0 | | 15 | | 2 | |
| 7 CETR HAL | | | | | | 100.0 | | 10.0 | | 10 | | 2 | |
| 8 CETR PIN | | | | | | 100.0 | | 10.0 | | 10 | | 2 | |
| 9 HYPO PHY | | | | | | 100.0 | | 10.0 | | 10 | | 2 | |
| 10 PARM SUL | | | | | | 100.0 | | 10.0 | | 10 | | 2 | |
| 11 BRYO FUS | | | | | | 100.0 | | 5.0 | | 5 | | 2 | |
| 12 EVER MES | | | | | | 100.0 | | 5.0 | | 5 | | 2 | |
| B1 LAYER | | | | | | | | | | | | | |
| 13 ALNU CRI | | | | | | 100.0 | | 10.0 | | 10 | | 2 | |
| PICE GLA | | | | | | 100.0 | | 10.0 | | 10 | | 2 | |
| POPU TRE | | | | | | 100.0 | | 5.0 | | 5 | | 2 | |
| B2 LAYER | | | | | | | | | | | | | |
| 14 LEDU GRO | | | | | | 100.0 | | 30.0 | | 30 | | 2 | |
| 15 VACC MYR | | | | | | 100.0 | | 20.0 | | 20 | | 2 | |
| PICE GLA | | | | | | 100.0 | | 10.0 | | 10 | | 2 | |
| ALNU CRI | | | | | | 100.0 | | 2.0 | | 2 | | 2 | |
| 16 LONI INV | | | | | | 100.0 | | 1.0 | | 1 | | 2 | |
| PINU BAN | | | | | | 100.0 | | 1.0 | | 1 | | 2 | |
| 17 SALI BEB | | | | | | 100.0 | | 1.0 | | 1 | | 2 | |
| C LAYER | | | | | | | | | | | | | |
| 18 CORN CAN | | | | | | 100.0 | | 3.0 | | 3 | | 2 | |
| 19 ANTE NEG | | | | | | 100.0 | | 1.0 | | 1 | | 2 | |
| 20 EPIL ANG | | | | | | 100.0 | | 1.0 | | 1 | | 2 | |
| 21 FRAG VIR | | | | | | 100.0 | | 1.0 | | 1 | | 2 | |
| 22 LATH OCH | | | | | | 100.0 | | 1.0 | | 1 | | 2 | |
| D LAYER | | | | | | | | | | | | | |
| 23 CALA CAN | | | | | | 100.0 | | 5.0 | | 5 | | 2 | |
| 24 ORYZ PUN | | | | | | 100.0 | | 1.0 | | 1 | | 2 | |
| EX LAYER | | | | | | | | | | | | | |
| 25 PLEU SCH | | | | | | 100.0 | | 3.0 | | 3 | | 2 | |
| 26 DICR POL | | | | | | 100.0 | | 1.0 | | 1 | | 2 | |
| 27 POLY JUN | | | | | | 100.0 | | 1.0 | | 1 | | 2 | |
| 28 TOME NIT | | | | | | 100.0 | | 1.0 | | 1 | | 2 | |
| EL LAYER | | | | | | | | | | | | | |
| 29 CLAD RAN | | | | | | 100.0 | | 30.0 | | 30 | | 2 | |
| 30 CLAD CRI | | | | | | 100.0 | | 1.0 | | 1 | | 2 | |
| 31 CLAD DEF | | | | | | 100.0 | | 1.0 | | 1 | | 2 | |
| 32 CLAD GRA | | | | | | 100.0 | | 1.0 | | 1 | | 2 | |

| PLOT NUMBER | | MEAN | 4B | 4B |
|------------------------------|--|-------|------|------|
| TOWNSHIP & RANGE | | | LO05 | LO15 |
| MERIDIAN | | | 6612 | 6612 |
| MAPSHEET | | | W 4 | W 4 |
| PHYSIOGRAPHIC SUBREGION | | | 73L | 73L |
| GEOMORPHIC SYSTEM | | | 12 | 12 |
| ECOSECTION | | | | |
| ELEVATION(MASL) | | 580.0 | 570 | 590 |
| SLOPE(%) | | 4.5 | 8 | 1 |
| ASPECT(DEG) | | 212 | | |
| ENVIRONMENT/SOILS : | | | | |
| ECOLOGICAL MOISTURE REGIME | | | SX | SM |
| NUTRIENT REGIME | | | SM | SM |
| OVERLYING MATERIAL | | | Gfb | Gfb |
| UNDERLYING MATERIAL | | | M | M |
| EROSION/DEPOSITION | | | | |
| SOIL SUBGROUP | | | E | E |
| SOIL GREAT GROUP | | | DYB | DYB |
| SOIL DRAINAGE | | | W | W |
| SOLUM THICKNESS(CM) | | 73.0 | 65 | 81 |
| TYPE & DEPTH TO RESTRICT(CM) | | | | |
| THICKNESS LFH(CM) | | 5.0 | 5 | 5 |
| PH-LFH | | 4.6 | 4.8 | 4.5 |
| -A | | 4.7 | 4.3 | 5.1 |
| -B | | 5.0 | 5.0 | 5.0 |
| -C | | | SL | SL |
| TEXTURE -A/1 | | | SL | SL |
| -B/2 | | | S | S |
| -C/3 | | | | |
| COARSE FRAGMENTS-B(%) | | 0.0 | | |
| SEEPAGE(+) & MOTTILING(CM) | | | | |
| ROOTING DEPTH(CM) | | 32.5 | 35 | 30 |
| VEGETATION : | | | | |
| ASSOCIATION | | | P3 | P3 |
| STAND AGE(YR) | | 48.5 | 50 | 47 |
| CANOPY HEIGHT(M) | | 15.0 | 15 | 15 |
| MEAN ANNUAL INCREMENT | | 0.0 | | |
| STRA TA COVERAGE(%) -A | | 50.0 | 65 | 35 |
| -B | | 42.5 | 35 | 50 |
| -C | | 57.5 | 50 | 65 |
| -G | | 30.0 | 15 | 45 |
| -D | | 1.5 | 1 | 2 |
| -L | | 0.5 | 1 | 0 |
| SURFACE SUBST(%) -DEAD WOOD | | 7.5 | 5 | 10 |
| -BEDROCK | | 0.0 | 0 | 0 |
| -STONES | | 0.0 | 0 | 0 |
| -MIN. SOIL | | 0.0 | 0 | 0 |
| -ORGANIC | | 92.5 | 95 | 90 |
| -OPEN WATER | | 0.0 | 0 | 0 |
| BIOMASS(KG/HA) -FORBS | | 0.0 | | |
| -GRAMINOIDS | | 0.0 | | |
| -BROWSE | | 0.0 | | |

| LEVEL | | ZONE | | ASSC TYPE | | PINE/ALDER/BLUEBERRY | | | | RESOURCE INVENTORY | | | |
|----------------------------|----------|---------------|------|-----------|---|--|---|---------|--|---|--|--|--|
| ECOSYM UNIT | | P | | 3 | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | EDMONTON, ALBERTA NOV 27, 1984 10:17:22 TABLE 2 PAGE 1 | | | |
| PLOT NUMBER | | AVERAGE VALUE | | | | 4B LO05 | | 4B LO15 | | | | | |
| NUMBER OF SPECIES PER PLOT | | 35.5 | | | | 36 | | 35 | | | | | |
| SPECIES | | %P MC | | | | %C SV | | %C SV | | | | | |
| A1 LAYER | | | | | | | | | | | | | |
| 1 | PINU BAN | 50.0 | 15.0 | 30 | 2 | | | | | | | | |
| 2 | POPU TRE | 50.0 | 12.5 | | | 25 | 2 | | | | | | |
| A2 LAYER | | | | | | | | | | | | | |
| POPU TRE | | 100.0 | 10.0 | 15 | 2 | 5 | 2 | | | | | | |
| 3 | BETU PAP | 100.0 | 6.0 | 10 | 2 | 2 | 2 | | | | | | |
| 4 | PICE GLA | 100.0 | 5.0 | 5 | 2 | 5 | 2 | | | | | | |
| PINU BAN | | 50.0 | 0.5 | | | 1 | 2 | | | | | | |
| A3 LAYER | | | | | | | | | | | | | |
| 5 | CETR PIN | 100.0 | 5.0 | 5 | 2 | 5 | 2 | | | | | | |
| 6 | PARM SUL | 100.0 | 5.0 | 5 | 2 | 5 | 2 | | | | | | |
| 7 | PYLA POL | 100.0 | 5.0 | 5 | 2 | 5 | 2 | | | | | | |
| 8 | CETR HAL | 50.0 | 2.5 | | | 5 | 2 | | | | | | |
| 9 | EVER MES | 50.0 | 2.5 | 5 | 2 | | | | | | | | |
| B1 LAYER | | | | | | | | | | | | | |
| 10 | SALI BEB | 100.0 | 5.0 | 5 | 2 | 5 | 2 | | | | | | |
| 11 | ALNU CRI | 50.0 | 5.0 | 10 | 2 | | | | | | | | |
| B2 LAYER | | | | | | | | | | | | | |
| 12 | VACC MYR | 100.0 | 17.5 | 15 | 2 | 20 | 2 | | | | | | |
| 13 | LEDU GRO | 100.0 | 11.5 | 3 | 1 | 20 | 2 | | | | | | |
| POPU TRE | | 100.0 | 3.5 | 2 | 2 | 5 | 2 | | | | | | |
| PICE GLA | | 100.0 | 2.0 | 2 | 2 | 2 | 2 | | | | | | |
| 14 | AMEL ALN | 100.0 | 1.5 | 1 | 2 | 2 | 2 | | | | | | |
| 15 | ROSA ACI | 100.0 | 1.5 | 1 | 2 | 2 | 2 | | | | | | |
| ALNU CRI | | 50.0 | 2.5 | 5 | 2 | | | | | | | | |
| 16 | SHEP CAN | 50.0 | 2.5 | | | 5 | 2 | | | | | | |
| BETU PAP | | 50.0 | 1.0 | 2 | 2 | | | | | | | | |
| SALI BEB | | 50.0 | 1.0 | 2 | 2 | | | | | | | | |
| 17 | SYMP ALB | 50.0 | 1.0 | | | 2 | 2 | | | | | | |
| 18 | LONI INV | 50.0 | 0.5 | 1 | 2 | | | | | | | | |
| 19 | RUBU STR | 50.0 | 0.5 | 1 | 2 | | | | | | | | |
| C LAYER | | | | | | | | | | | | | |
| 20 | VACC VIT | 100.0 | 10.0 | 15 | 2 | 5 | 2 | | | | | | |
| 21 | CORN CAN | 100.0 | 8.0 | 1 | 2 | 15 | 2 | | | | | | |
| 22 | LINN BOR | 100.0 | 7.5 | 10 | 2 | 5 | 2 | | | | | | |
| 23 | FRAG VIR | 100.0 | 5.5 | 1 | 2 | 10 | 2 | | | | | | |
| 24 | PETA PAL | 100.0 | 1.5 | 2 | 2 | 1 | 2 | | | | | | |
| 25 | ASTE CIL | 100.0 | 1.0 | 1 | 2 | 1 | 2 | | | | | | |
| 26 | ARCT UVA | 50.0 | 2.5 | 5 | 2 | | | | | | | | |
| 27 | GALI BOR | 50.0 | 1.5 | | | 3 | 2 | | | | | | |
| 28 | MAIA CAN | 50.0 | 1.5 | | | 3 | 2 | | | | | | |
| 29 | RUBU PUB | 50.0 | 1.5 | | | 3 | 2 | | | | | | |
| 30 | ORTH SEC | 50.0 | 1.0 | 2 | 2 | | | | | | | | |
| 31 | ACHI MIL | 50.0 | 0.5 | | | 1 | 2 | | | | | | |
| 32 | EPIL ANG | 50.0 | 0.5 | 1 | 2 | | | | | | | | |
| 33 | EQUI ARV | 50.0 | 0.5 | | | 1 | 2 | | | | | | |
| 34 | EQUI SYL | 50.0 | 0.5 | | | 1 | 2 | | | | | | |
| 35 | LATH OCH | 50.0 | 0.5 | 1 | 2 | | | | | | | | |

| LEVEL | | ZONE | | ASSC | | TYPE | | PINE/ALDER/BLUEBERRY | | RESOURCE INVENTORY | |
|----------------------------|--|---------------|--|------|--|------|--|--|--|--------------------|--|
| ECOSYM UNIT P | | 3 | | | | | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | EDMONTON, ALBERTA | |
| | | | | | | | | 10:17:22 | | NOV 27, 1984 | |
| | | | | | | | | | | TABLE 2 | |
| | | | | | | | | | | PAGE 2 | |
| PLOT NUMBER | | AVERAGE VALUE | | 4B | | 4B | | | | | |
| | | LO05 | | LO15 | | | | | | | |
| NUMBER OF SPECIES PER PLOT | | 35.5 | | 36 | | 35 | | | | | |
| SPECIES | | %P | | MC | | %C | | SV | | %C | |
| | | | | | | | | | | | |
| 36 VTOL REN | | 50.0 | | 0.5 | | 1 | | 2 | | | |
| D LAYER | | | | | | | | | | | |
| 37 ELYM INN | | 100.0 | | 15.0 | | 15 | | 2 | | 15 | |
| 38 BROM CIL | | 50.0 | | 7.5 | | | | | | 15 | |
| 39 CALA CAN | | 50.0 | | 7.5 | | | | | | 15 | |
| 40 SCHI PUR | | 50.0 | | 0.5 | | 1 | | 2 | | | |
| EX LAYER | | | | | | | | | | | |
| 41 PLEU SCH | | 100.0 | | 1.0 | | 1 | | 2 | | 1 | |
| 42 BRAC SAL | | 50.0 | | 1.0 | | | | | | 2 | |
| EL LAYER | | | | | | | | | | | |
| 43 CLAD MIT | | 50.0 | | 0.5 | | 1 | | 2 | | | |

| PLOT NUMBER | MEAN | 4B | 4B |
|------------------------------|-------|------|------|
| TOWNSHIP & RANGE | | LOO1 | LO19 |
| MERIDIAN | | W 4 | W 4 |
| MAPSHEET | | 73L | 73L |
| | | 13 | 12 |
| PHYSIOGRAPHIC SUBREGION | | | |
| GEOMORPHIC SYSTEM | | | |
| ECOSECTION | | | |
| ELEVATION(MASL) | 575.0 | 550 | 600 |
| SLOPE(%) | 12.5 | 8 | 17 |
| ASPECT(DEG) | | 335 | 330 |
| ENVIRONMENT/SOILS : | | | |
| ----- | | | |
| ECOLOGICAL MOISTURE REGIME | | M | M |
| NUTRIENT REGIME | | SM | M |
| OVERLYING MATERIAL | | GFV | GFb |
| UNDERLYING MATERIAL | | M | M |
| EROSION/DEPOSITION | | | |
| SOIL SUBGROUP | | BR | BR |
| SOIL GREAT GROUP | | GL | GL |
| SOIL DRAINAGE | | MW | MW |
| SOLUM THICKNESS(CM) | 56.5 | 53 | 60 |
| TYPE & DEPTH TO RESTRICT(CM) | | | |
| THICKNESS LFH(CM) | 7.0 | 10 | 4 |
| pH-LFH | 0.0 | | |
| -A | 5.8 | 6.0 | 5.6 |
| -B | 5.1 | 5.1 | 5.1 |
| -C | 5.8 | 4.5 | 7.0 |
| TEXTURE-A/1 | | SL | SL |
| -B/2 | | SYCL | SCL |
| -C/3 | | SCL | SCL |
| COARSE FRAGMENTS-B(%) | 15.0 | | 15 |
| SEEPAGE(*) & MOTTILING(CM) | | | |
| ROOTING DEPTH(CM) | 29.5 | 42 | 17 |
| VEGETATION : | | | |
| ----- | | | |
| ASSOCIATION | | A1a | A1a |
| STAND AGE(YR) | 50.0 | 50 | 50 |
| CANOPY HEIGHT(M) | 19.5 | 17 | 22 |
| MEAN ANNUAL INCREMENT | 0.0 | | |
| STRATA COVERAGE(%) -A | 77.5 | 75 | 80 |
| -B | 40.0 | 40 | 40 |
| -C | 62.5 | 65 | 60 |
| -G | 1.5 | 1 | 2 |
| -D | 1.0 | 1 | 1 |
| -L | 1.0 | 1 | 1 |
| SURFACE SUBST(%) -DEAD WOOD | 4.0 | 3 | 5 |
| -BEDROCK | 0.0 | 0 | 0 |
| -STONES | 0.0 | 0 | 0 |
| -MIN SOIL | 0.0 | 0 | 0 |
| -ORGANIC | 96.0 | 97 | 95 |
| -OPEN WATER | 0.0 | 0 | 0 |
| -FORBS | 0.0 | | |
| -GRAMINOIDS | 0.0 | | |
| -BROWSE | 0.0 | | |
| BIOMASS(KG/HA) -FORBS | | | |
| -GRAMINOIDS | | | |
| -BROWSE | | | |

| LEVEL | | | ZONE | | ASC TYPE | | ASPEN/ALDER/TWINFLOWER | | | | RESOURCE INVENTORY | | | |
|---------------|--|--|------|--|----------|--|--|--|--|--|--------------------|--|--|--|
| ECOSYM UNIT A | | | 1a | | | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | EDMONTON, ALBERTA | | | |
| | | | | | | | 10:17:22 | | | | NOV 27, 1984 | | | |
| | | | | | | | TABLE 3 | | | | PAGE 1 | | | |
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RESOURCE INVENTORY
EDMONTON, ALBERTA
10:17:22 NOV 27, 1984
TABLE 3 PAGE 2

ASPEN/ALDER/TWINFLOWER

PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V)

| LEVEL | ZONE | ASSC TYPE | 1a | |
|----------------------------|-------|-----------|-----|-----|
| ECOSYM UNIT | A | | | |
| PLOT NUMBER | | | | |
| NUMBER OF SPECIES PER PLOT | | | | |
| SPECIES | | | | |
| 37 VIOL REN | 50.0 | 0.5 | 1 | 2 |
| 38 VIOL RUG | 50.0 | 0.5 | | 1 2 |
| D LAYER | | | | |
| 39 CALA CAN | 100.0 | 1.5 | 1 2 | 2 2 |
| EX LAYER | | | | |
| 40 BRAC SAL | 50.0 | 0.5 | | 1 2 |
| 41 HAPL MIC | 50.0 | 0.5 | | 1 2 |
| 42 JBRA CCA M | 50.0 | 0.5 | 1 2 | |
| 43 PLAG CUS | 50.0 | 0.5 | | 1 2 |
| EL LAYER | | | | |
| 44 CLAD CLO | 50.0 | 0.5 | | 1 2 |
| 45 PELT APT | 50.0 | 0.5 | | 1 2 |
| 46 PELT CAN | 50.0 | 0.5 | | 1 2 |

| ENVIRONMENT/ SOILS | | VEGETATION | | TABLE 4 | |
|------------------------------|---------------------|---------------------------|----|---------|----|
| TITLE : | | ASPEN/WILLOW/SARSAPARILLA | | | |
| PLOT NUMBER | MEAN | 4B | 4B | 4B | 4B |
| TOWNSHIP & RANGE | LO17 LO03 LO14 LO16 | | | | |
| MERIDIAN | 6612 6612 6612 6612 | | | | |
| MAPSHEET | W 4 W 4 W 4 W 4 | | | | |
| PHYSIOGRAPHIC SUBREGION | 73L 73L 73L 73L | | | | |
| GEOMORPHIC SYSTEM | 12 12 12 12 | | | | |
| ECOSECTION | | | | | |
| ELEVATION(MASL) | 585.0 590 580 590 | | | | |
| SLOPE(%) | 11.3 4 15 14 | | | | |
| ASPECT(DEG) | 90 90 227 90 | | | | |
| ENVIRONMENT/SOILS : | | | | | |
| ECOLOGICAL MOISTURE REGIME | SX SM SM SX | | | | |
| NUTRIENT REGIME | M SM M M | | | | |
| OVERLYING MATERIAL | GFb GFb Mb GFb | | | | |
| UNDERLYING MATERIAL | M M R M | | | | |
| EROSION/DEPOSITION | | | | | |
| SOIL SUBGROUP | E O BR E | | | | |
| SOIL GREAT GROUP | DYB GL GL DYB | | | | |
| SOIL DRAINAGE | MW MW MW | | | | |
| SOLUM THICKNESS(CM) | 60 80 54 110 | | | | |
| TYPE & DEPTH TO RESTRICT(CM) | | | | | |
| THICKNESS LFH(CM) | 8.0 6 10 10 | | | | |
| pH-LFH | 0.0 6.1 5.5 7.0 | | | | |
| -A | 5.0 5.1 5.0 5.0 | | | | |
| -B | 7.0 7.0 8.0 8.0 | | | | |
| -C | LS SL SL S | | | | |
| TEXTURE-A/1 | SCL CL SCL S | | | | |
| -B/2 | S SCL CL SL | | | | |
| -C/3 | 7.5 10 5 | | | | |
| COARSE FRAGMENTS-B(%) | | | | | |
| SEEPAGE(*) & MOTTILING(CM) | | | | | |
| ROOTING DEPTH(CM) | 30.3 23 21 32 45 | | | | |
| VEGETATION : | | | | | |
| ASSOCIATION | A1b A1b A1b A1b | | | | |
| STAND AGE(YR) | 55.3 26 52 68 75 | | | | |
| CANOPY HEIGHT(M) | 17.8 19 13 18 21 | | | | |
| MEAN ANNUAL INCREMENT | 0.0 | | | | |
| STRATA COVERAGE(%) -A | 71.3 65 75 75 70 | | | | |
| -B | 63.3 95 53 65 40 | | | | |
| -C | 33.8 20 15 40 60 | | | | |
| -G | 12.0 5 13 25 5 | | | | |
| -D | 0.5 0 1 0 1 | | | | |
| -L | 0.0 0 0 0 0 | | | | |
| SURFACE SUBST(%) -DEAD WOOD | 5.8 5 1 2 15 | | | | |
| -BEDROCK | 0.0 0 0 0 0 | | | | |
| -STONES | 0.0 0 0 0 0 | | | | |
| -MIN. SOIL | 0.0 0 0 0 0 | | | | |
| -ORGANIC | 94.3 95 99 98 85 | | | | |
| -OPEN WATER | 0.0 0 0 0 0 | | | | |
| BIOMASS(KG/HA) -FORBS | 0.0 | | | | |
| -GRAMINOIDS | 0.0 | | | | |
| -BROWSE | 0.0 | | | | |

| LEVEL | | | ZONE | | ASSC TYPE | | ASPEN/WILLOW/SARSAPARILLA | | | | | | | | | | RESOURCE INVENTORY | | | | |
|----------------------------|----------|--|------|--|-----------|--|--|------|---------|---|---------|---|---------|---|---------|---|---|--|--|--|--|
| ECOSYM UNIT | | | 1a | | 1b | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | | | | | | | EDMONTON, ALBERTA NOV 27, 1984 10:17:22 TABLE 4 PAGE 1 | | | | |
| | | | | | | | AVERAGE VALUE | | 4B LO17 | | 4B LO03 | | 4B LO14 | | 4B LO16 | | | | | | |
| | | | | | | | 32.8 | | 38 | | 34 | | 30 | | 29 | | | | | | |
| | | | | | | | %P MC | | %C SV | | %C SV | | %C SV | | %C SV | | | | | | |
| PILOT NUMBER | | | | | | | | | | | | | | | | | | | | | |
| NUMBER OF SPECIES PER PLOT | | | | | | | | | | | | | | | | | | | | | |
| SPECIES | | | | | | | | | | | | | | | | | | | | | |
| A1 LAYER | | | | | | | | | | | | | | | | | | | | | |
| 1 | POPU TRE | | | | | | 100.0 | 50.0 | 45 | 2 | 60 | 2 | 65 | 2 | 30 | 2 | | | | | |
| A2 LAYER | | | | | | | | | | | | | | | | | | | | | |
| POPU TRE | | | | | | | 100.0 | 18.8 | 20 | 2 | 10 | 2 | 5 | 2 | 40 | 2 | | | | | |
| 2 | POPU BAL | | | | | | 75.0 | 3.8 | 5 | 2 | 5 | 2 | 5 | 2 | | | | | | | |
| 3 | BETU PAP | | | | | | 50.0 | 4.5 | 15 | 2 | | | | | 3 | 2 | | | | | |
| A3 LAYER | | | | | | | | | | | | | | | | | | | | | |
| 4 | PYLA POL | | | | | | 100.0 | 6.3 | 5 | 2 | 10 | 2 | 5 | 2 | 5 | 2 | | | | | |
| 5 | CETR PIN | | | | | | 75.0 | 3.8 | 5 | 2 | 5 | 2 | | | 5 | 2 | | | | | |
| 6 | CETR HAL | | | | | | 50.0 | 2.5 | 5 | 2 | | | | | | | | | | | |
| 7 | EVER MES | | | | | | 50.0 | 2.5 | 5 | 2 | | | | | 5 | 2 | | | | | |
| 8 | PARM SUL | | | | | | 50.0 | 2.5 | 5 | 2 | | | | | 5 | 2 | | | | | |
| 9 | CERT PIN | | | | | | 25.0 | 1.3 | | | 5 | 2 | | | | | | | | | |
| 10 | HYPH PHY | | | | | | 25.0 | 1.3 | | | | | | | | | | | | | |
| B1 LAYER | | | | | | | | | | | | | | | | | | | | | |
| 11 | SALI BEB | | | | | | 75.0 | 6.3 | 15 | 2 | | | 5 | 2 | 5 | 2 | | | | | |
| 12 | AMEL ALN | | | | | | 75.0 | 5.8 | 5 | 2 | 8 | 2 | 10 | 2 | | | | | | | |
| 13 | CORY COR | | | | | | 25.0 | 10.0 | 40 | 2 | | | | | | | | | | | |
| B2 LAYER | | | | | | | | | | | | | | | | | | | | | |
| 14 | ROSA ACI | | | | | | 100.0 | 8.8 | 5 | 2 | 10 | 2 | 5 | 2 | 15 | 2 | | | | | |
| | SALI BEB | | | | | | 100.0 | 5.5 | 10 | 2 | 1 | 2 | 1 | 2 | 10 | 2 | | | | | |
| | AMEL ALN | | | | | | 100.0 | 4.8 | 2 | 2 | 7 | 2 | 5 | 2 | 5 | 2 | | | | | |
| | CORY COR | | | | | | 75.0 | 18.8 | 10 | 2 | 30 | 2 | 35 | 2 | | | | | | | |
| 15 | SYMP ALB | | | | | | 50.0 | 1.0 | 3 | 2 | 1 | 2 | | | | | | | | | |
| 16 | VIBU EDU | | | | | | 50.0 | 0.8 | | | | | 1 | 2 | 2 | 2 | | | | | |
| | POPU TRE | | | | | | 25.0 | 1.3 | 5 | 2 | | | | | | | | | | | |
| 17 | PRUN VIR | | | | | | 25.0 | 1.3 | | | 5 | 2 | | | | | | | | | |
| | BETU PAP | | | | | | 25.0 | 0.3 | 1 | 2 | | | | | | | | | | | |
| | POPU BAL | | | | | | 25.0 | 0.3 | 1 | 2 | | | | | | | | | | | |
| C LAYER | | | | | | | | | | | | | | | | | | | | | |
| 18 | CORN CAN | | | | | | 100.0 | 7.0 | 5 | 2 | 1 | 2 | 7 | 2 | 15 | 2 | | | | | |
| 19 | RUBU PUB | | | | | | 100.0 | 3.8 | 3 | 2 | 5 | 2 | 5 | 2 | 2 | 2 | | | | | |
| 20 | ASTE CIL | | | | | | 100.0 | 2.0 | 1 | 2 | 3 | 2 | 1 | 2 | 3 | 2 | | | | | |
| 21 | EPIL ANG | | | | | | 100.0 | 1.8 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | | | | |
| 22 | PETA PAL | | | | | | 100.0 | 1.8 | 3 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | | | | | |
| 23 | GALI BOR | | | | | | 100.0 | 1.5 | 1 | 2 | 1 | 2 | 1 | 2 | 3 | 2 | | | | | |
| 24 | LATH OCH | | | | | | 100.0 | 1.3 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | | | | | |
| 25 | MAIA CAN | | | | | | 100.0 | 1.3 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | | | | | |
| 26 | ARAL NUD | | | | | | 75.0 | 11.8 | 10 | 2 | 2 | 2 | | | 35 | 2 | | | | | |
| 27 | LIIN BOR | | | | | | 75.0 | 5.3 | 1 | 2 | | | 10 | 2 | 10 | 2 | | | | | |
| 28 | FRAG VIR | | | | | | 75.0 | 0.8 | | | 1 | 2 | 1 | 2 | 1 | 2 | | | | | |
| 29 | MERT PAN | | | | | | 75.0 | 0.8 | | | 1 | 2 | 1 | 2 | 1 | 2 | | | | | |
| 30 | PYRO ASA | | | | | | 50.0 | 1.0 | 1 | 2 | | | 3 | 2 | | | | | | | |
| 31 | ACHI MIL | | | | | | 50.0 | 0.5 | | | 1 | 2 | 1 | 2 | | | | | | | |
| 32 | DISP TRA | | | | | | 50.0 | 0.5 | | | 1 | 2 | | | 1 | 2 | | | | | |
| 33 | MITE NUD | | | | | | 50.0 | 0.5 | | | | | 1 | 2 | 1 | 2 | | | | | |
| 34 | VICI AME | | | | | | 50.0 | 0.5 | 1 | 2 | 1 | 2 | | | | | | | | | |
| 35 | VIOL REN | | | | | | 50.0 | 0.5 | 1 | 2 | 1 | 2 | | | | | | | | | |

RESOURCE INVENTORY
EDMONTON, ALBERTA
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TABLE 4 PAGE 2

ASPEN/WILLOW/SARSAPARILLA

PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V)

| LEVEL | ZONE | ASSC | TYPE |
|----------------------------|----------|------|------|
| ECOSYM UNIT | A | 1b | |
| PLOT NUMBER | | | |
| NUMBER OF SPECIES PER PLOT | | | |
| SPECIES | | | |
| 36 | PYRD SEC | | |
| 37 | THAL VEN | | |
| 38 | GEUM ALL | | |
| 39 | HERA LAN | | |
| 40 | LILI PHI | | |
| 41 | SANI MAR | | |
| 42 | VICE AME | | |
| | D LAYER | | |
| 43 | CALA CAN | | |
| 44 | ELYM INN | | |
| 45 | BROM CIL | | |
| | EX LAYER | | |
| 46 | BRAC CAM | | |
| 47 | BRAC SAL | | |
| 48 | PLEU SCH | | |

| | MEAN | 4B | 4B |
|------------------------------|-------|------|------|
| PLOT NUMBER | | LO18 | LO07 |
| TOWNSHIP & RANGE | | 6612 | 6613 |
| MERIDIAN | | W 4 | W 4 |
| MAPSHEET | | 73L | 73L |
| | | 12 | 13 |
| PHYSIOGRAPHIC SUBREGION | | | |
| GEOMORPHIC SYSTEM | | | |
| ECOSECTION | | | |
| ELEVATION(MASL) | 585.0 | 590 | 580 |
| SLOPE(%) | 2.5 | 5 | 0 |
| ASPECT(DEG) | | | |
| ENVIRONMENT/SOILS : | | | |
| ECOLOGICAL MOISTURE REGIME | | SM | SM |
| NUTRIENT REGIME | | SM | M |
| OVERLYING MATERIAL | | GFV | GFV |
| UNDERLYING MATERIAL | | M | M |
| EROSION/DEPOSITION | | | |
| SOIL SUBGROUP | | BR | BR |
| SOIL GREAT GROUP | | GL | GL |
| SOIL DRAINAGE | | W | MW |
| SOLUM THICKNESS(CM) | 60.0 | 60 | 60 |
| TYPE & DEPTH TO RESTRICT(CM) | | | |
| THICKNESS LFH(CM) | 9.5 | 5 | 14 |
| pH-LFH | 0.0 | | |
| -A | 4.9 | 4.5 | 5.3 |
| -B | 5.4 | 5.0 | 5.9 |
| -C | 6.0 | 5.0 | 7.0 |
| TEXTURE-A/1 | | SCL | SIL |
| -B/2 | | CL | CL |
| -C/3 | | CL | S |
| COARSE FRAGMENTS-B(%) | 6.5 | 8 | 5 |
| SEEPAGE(*) & MOTTILING(CM) | | | |
| ROOTING DEPTH(CM) | 22.0 | 28 | 16 |
| VEGETATION : | | | |
| ASSOCIATION | | A2 | A2 |
| STAND AGE(YR) | 41.5 | 57 | 26 |
| CANOPY HEIGHT(M) | 19.0 | 19 | 19 |
| MEAN ANNUAL INCREMENT | 0.0 | | |
| STRATA COVERAGE(%) -A | 37.5 | 35 | 40 |
| -B | 40.0 | 50 | 30 |
| -C | 37.5 | 45 | 30 |
| -G | 20.0 | 35 | 5 |
| -D | 1.0 | 1 | 1 |
| -L | 0.0 | 0 | 0 |
| SURFACE SUBST(%) -DEAD WOOD | 6.0 | 10 | 2 |
| -BEDROCK | 0.0 | 0 | 0 |
| -STONES | 0.0 | 0 | 0 |
| -MIN. SOIL | 0.0 | 0 | 0 |
| -ORGANIC | 94.0 | 90 | 98 |
| -OPEN WATER | 0.0 | 0 | 0 |
| BIOMASS(KG/HA) -FORBS | 0.0 | 0 | 0 |
| -GRAMINOIDS | 0.0 | 0 | 0 |
| -BROWSE | 0.0 | 0 | 0 |

| LEVEL ZONE ASSC TYPE | | | | ASPEN-POPLAR/CRANBERRY | | | | RESOURCE INVENTORY | | | |
|----------------------------|--|---|--|---|--|-------|--|--------------------|--|--|--|
| ECOSYM UNIT A | | 2 | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) TABLE 5 PAGE 1 | | | | | | | |
| PLOT NUMBER | | | | AVERAGE | | 4B | | 4B | | | |
| | | | | VALUE | | LO18 | | LO07 | | | |
| NUMBER OF SPECIES PER PLOT | | | | 37.5 | | 34 | | 41 | | | |
| SPECIES | | | | %P MC | | %C SV | | %C SV | | | |
| A1 LAYER | | | | | | | | | | | |
| 1 POPU TRE | | | | 100.0 15.0 | | 25 2 | | 5 2 | | | |
| 2 POPU BAL | | | | 50.0 7.5 | | | | 15 2 | | | |
| A2 LAYER | | | | | | | | | | | |
| POPU TRE | | | | 100.0 10.0 | | 5 2 | | 15 2 | | | |
| 3 BETU PAP | | | | 50.0 5.0 | | 10 2 | | | | | |
| POPU BAL | | | | 50.0 2.5 | | | | 5 2 | | | |
| A3 LAYER | | | | | | | | | | | |
| 4 PARM SUL | | | | 100.0 5.0 | | 5 | | 5 2 | | | |
| 5 PYLA POL | | | | 100.0 5.0 | | 5 2 | | 5 2 | | | |
| 6 CERT PIN | | | | 50.0 2.5 | | 5 2 | | | | | |
| 7 CETR HAL | | | | 50.0 2.5 | | 5 2 | | | | | |
| 8 EVER MES | | | | 50.0 2.5 | | 5 2 | | | | | |
| 9 ORTH OBT | | | | 50.0 2.5 | | 5 2 | | | | | |
| 10 PARM FLA | | | | 50.0 2.5 | | 5 2 | | 5 2 | | | |
| 11 RAMA MIN | | | | 50.0 2.5 | | 5 2 | | | | | |
| 12 USNE HIR | | | | 50.0 2.5 | | 5 2 | | | | | |
| 13 XANT RAM | | | | 50.0 2.5 | | 5 2 | | 5 2 | | | |
| B1 LAYER | | | | | | | | | | | |
| 14 SALI BEB | | | | 50.0 7.5 | | 15 2 | | | | | |
| POPU BAL | | | | 50.0 2.5 | | 5 2 | | | | | |
| 15 ALNU CRI | | | | 50.0 2.0 | | | | 4 2 | | | |
| 16 CORY COR | | | | 50.0 0.5 | | | | 1 2 | | | |
| B2 LAYER | | | | | | | | | | | |
| 17 AMEL ALN | | | | 100.0 10.5 | | 20 2 | | 1 2 | | | |
| 18 ROSA ACI | | | | 100.0 7.5 | | 5 2 | | 10 2 | | | |
| 19 PICE GLA | | | | 100.0 3.0 | | 5 2 | | 1 2 | | | |
| POPU BAL | | | | 100.0 1.0 | | 1 2 | | 1 2 | | | |
| POPU TRE | | | | 50.0 7.5 | | 15 2 | | | | | |
| 20 CORN STO | | | | 50.0 5.0 | | | | 10 2 | | | |
| 21 VIBU EDU | | | | 50.0 2.5 | | | | 5 2 | | | |
| 22 LONI INV | | | | 50.0 1.5 | | | | 3 2 | | | |
| 23 BETU OCC | | | | 50.0 0.5 | | | | 1 2 | | | |
| BETU PAP | | | | 50.0 0.5 | | 1 2 | | | | | |
| CORY COR | | | | 50.0 0.5 | | | | 1 2 | | | |
| 24 PRUN VIR | | | | 50.0 0.5 | | | | 1 2 | | | |
| 25 RIBE LAC | | | | 50.0 0.5 | | | | 1 2 | | | |
| SALI BEB | | | | 50.0 0.5 | | | | 1 2 | | | |
| 26 SYMP ALB | | | | 50.0 0.5 | | | | 1 2 | | | |
| C LAYER | | | | | | | | | | | |
| 27 EPIL ANG | | | | 100.0 10.5 | | 20 2 | | 1 2 | | | |
| 28 ASTE CIL | | | | 100.0 4.5 | | 5 2 | | 4 2 | | | |
| 29 PETA PAL | | | | 100.0 4.5 | | 5 2 | | 4 2 | | | |
| 30 FRAG VIR | | | | 100.0 1.0 | | 1 2 | | 1 2 | | | |
| 31 MAIA CAN | | | | 100.0 1.0 | | 1 2 | | 1 2 | | | |
| 32 PYRO ASA | | | | 100.0 1.0 | | 1 2 | | 1 2 | | | |
| 33 VICI AME | | | | 100.0 1.0 | | 1 2 | | 1 2 | | | |
| 34 ARAL NUD | | | | 50.0 10.0 | | | | 20 2 | | | |

| LEVEL | | ZONE | ASSC | TYPE | ASPERN-POPLAR/CRANBERRY | | | | | RESOURCE INVENTORY | | | | |
|----------------------------|----------|---------|------|-------|--|-------|---|-------|---|--------------------|--|----|--|--|
| ECOSYM UNIT | | A | 2 | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | | EDMONTON, ALBERTA | | | | |
| | | | | | 10:17:22 NOV 27, 1984 | | | | | TABLE 5 PAGE 2 | | | | |
| PLOT NUMBER | | AVERAGE | | 4B | | 4B | | 4B | | | | | | |
| | | VALUE | | LO18 | | LO07 | | | | | | | | |
| NUMBER OF SPECIES PER PLOT | | 37.5 | | 34 | | 41 | | | | | | | | |
| SPECIES | | %P | | MC | | %C | | SV | | %C | | SV | | |
| 35 | MERT PAN | 50.0 | 1.5 | | | | | 3 | 2 | | | | | |
| 36 | RUBU PUB | 50.0 | 1.5 | | | | | 3 | 2 | | | | | |
| 37 | ACHI MIL | 50.0 | 0.5 | 1 | 2 | | | | | | | | | |
| 38 | CORN CAN | 50.0 | 0.5 | 1 | 2 | | | | | | | | | |
| 39 | DISP TRA | 50.0 | 0.5 | | | | | 1 | 2 | | | | | |
| 40 | EQUI ARV | 50.0 | 0.5 | | | | | 1 | 2 | | | | | |
| 41 | EQUI SYL | 50.0 | 0.5 | | | | | 1 | 2 | | | | | |
| 42 | GALI BOR | 50.0 | 0.5 | 1 | 2 | | | | | | | | | |
| 43 | GALI TRI | 50.0 | 0.5 | | | | | 1 | 2 | | | | | |
| 44 | LATH OCH | 50.0 | 0.5 | | | | | 1 | 2 | | | | | |
| 45 | LINN BOR | 50.0 | 0.5 | 1 | 2 | | | | | | | | | |
| 46 | SMIL TRI | 50.0 | 0.5 | 1 | 2 | | | | | | | | | |
| 47 | VIOL REN | 50.0 | 0.5 | | | | | 1 | 2 | | | | | |
| | D LAYER | ----- | | ----- | | ----- | | ----- | | ----- | | | | |
| 48 | CALA CAN | 100.0 | 12.5 | 20 | 2 | 5 | 2 | | | | | | | |
| 49 | ELYM INN | 50.0 | 7.5 | 15 | 2 | | | | | | | | | |
| | EX LAYER | ----- | | ----- | | ----- | | ----- | | ----- | | | | |
| 50 | BRAC CAM | 50.0 | 0.5 | 1 | 2 | | | | | | | | | |
| 51 | BRAC SAL | 50.0 | 0.5 | | | | | 1 | 2 | | | | | |

| | MEAN | 4B LO06 W 4 | 4B LO13 W 4 |
|------------------------------|-------|-------------------|-------------------|
| PLOT NUMBER | | | |
| TOWNSHIP & RANGE | | | |
| MERIDIAN | | | |
| MAP SHEET | | 73L 12 | 73L 12 |
| PHYSIOGRAPHIC SUBREGION | | | |
| GEOMORPHIC SYSTEM | | | |
| ECOSECTION | | | |
| ELEVATION(MASL) | 590.0 | 580 | 600 |
| SLOPE(%) | 12.0 | 15 | 9 |
| ASPECT(DEG) | | 125 | 90 |
| ENVIRONMENT/SOILS | | | |
| ECOLOGICAL MOISTURE REGIME | | SM | SM |
| NUTRIENT REGIME | | SM | SM |
| OVERLYING MATERIAL | | MB | MB |
| UNDERLYING MATERIAL | | R | R |
| EROSION/DEPOSITION | | | |
| SOIL SUBGROUP | | BR | BR |
| SOIL GREAT GROUP | | GL | GL |
| SOIL DRAINAGE | | MW | W |
| SOLUM THICKNESS(CM) | 47.5 | 55 | 40 |
| TYPE & DEPTH TO RESTRICT(CM) | | | |
| THICKNESS LFH(CM) | 7.0 | 6 | 8 |
| PH-LFH | 0.0 | | |
| -A | 5.4 | 5.4 | 5.5 |
| -B | 5.1 | 5.0 | 5.1 |
| -C | 5.3 | 4.5 | 6.0 |
| TEXTURE-A/1 | | L | SL |
| -B/2 | | CL | L |
| -C/3 | | CL | SL |
| COARSE FRAGMENTS-B(%) | 7.5 | 10 | 5 |
| SEEPAGE(*) & MOTTILING(CM) | | | |
| ROOTING DEPTH(CM) | 23.0 | | 23 |
| VEGETATION | | | |
| ASSOCIATION | | A3 | A3 |
| STAND AGE(YR) | 28.0 | 28 | 28 |
| CANOPY HEIGHT(M) | 16.0 | 14 | 18 |
| MEAN ANNUAL INCREMENT | | | |
| STRATA COVERAGE(%) -A | 72.5 | 70 | 75 |
| -B | 35.0 | 35 | 35 |
| -C | 37.5 | 35 | 40 |
| -G | 5.0 | 5 | 5 |
| -D | 2.0 | 3 | 1 |
| -L | 0.0 | 0 | 0 |
| SURFACE SUBST(%) -DEAD WOOD | | | |
| -BEDROCK | 2.5 | 2 | 3 |
| -STONES | 0.0 | 0 | 0 |
| -MIN. SOIL | 0.0 | 0 | 0 |
| -ORGANIC | 97.5 | 98 | 97 |
| -OPEN WATER | 0.0 | 0 | 0 |
| BIOMASS(KG/HA) -FORBS | 0.0 | | |
| -GRAMINOIDS | 0.0 | | |
| -BROWSE | 0.0 | | |

| LEVEL ZONE ASSC TYPE | | | ASPEN/CRANBERRY/SARSAPARILLA | | | RESOURCE INVENTORY | | |
|----------------------------|--|--|--|------|---------|--------------------|----|---|
| ECOSYM UNIT A 3 | | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | EDMONTON, ALBERTA | | |
| | | | 10:17:22 NOV 27, 1984 | | | TABLE 6 PAGE 1 | | |
| PLOT NUMBER | | | AVERAGE VALUE | | 4B LO06 | 4B LOT3 | | |
| NUMBER OF SPECIES PER PLOT | | | | | 33.5 | 35 | 32 | |
| SPECIES | | | %P | MC | %C SV | %C SV | | |
| A1 LAYER | | | | | | | | |
| 1 POPU TRE | | | 100.0 | 52.5 | 60 | 2 | 45 | 2 |
| 2 POPU BAL | | | 50.0 | 7.5 | | | 15 | 2 |
| A2 LAYER | | | | | | | | |
| POPU TRE | | | 100.0 | 10.0 | 10 | 2 | 10 | 2 |
| POPU BAL | | | 50.0 | 2.5 | | | 5 | 2 |
| A3 LAYER | | | | | | | | |
| 3 PYLA POL | | | 100.0 | 7.5 | 5 | 2 | 10 | 2 |
| 4 CETR HAL | | | 100.0 | 5.0 | 5 | 2 | 5 | 2 |
| 5 CETR PIN | | | 100.0 | 5.0 | 5 | 2 | 5 | 2 |
| 6 PARM SUL | | | 100.0 | 5.0 | 5 | 2 | 5 | 2 |
| 7 EVER MES | | | 50.0 | 2.5 | | | 5 | 2 |
| B1 LAYER | | | | | | | | |
| 8 AMEL ALN | | | 100.0 | 5.0 | 5 | 2 | 5 | 2 |
| 9 SALI BEB | | | 50.0 | 3.5 | | | 7 | 2 |
| 10 VIBU EDU | | | 50.0 | 1.5 | 3 | 2 | | |
| B2 LAYER | | | | | | | | |
| 11 ROSA ACI | | | 100.0 | 10.0 | 5 | 2 | 15 | 2 |
| VIBU EDU | | | 100.0 | 10.0 | 10 | 2 | 10 | 2 |
| 12 RUBU STR | | | 100.0 | 1.5 | 1 | 2 | 2 | 2 |
| AMEL ALN | | | 50.0 | 1.0 | 2 | 2 | | |
| 13 CORY COR | | | 50.0 | 1.0 | 2 | 2 | | |
| POPU TRE | | | 50.0 | 1.0 | 2 | 2 | | |
| 14 PRUN VIR | | | 50.0 | 1.0 | 2 | 2 | | |
| 15 CORN STO | | | 50.0 | 0.5 | 1 | 2 | | |
| C LAYER | | | | | | | | |
| 16 ARAL NUD | | | 100.0 | 12.5 | 15 | 2 | 10 | 2 |
| 17 EPIL ANG | | | 100.0 | 10.0 | 10 | 2 | 10 | 2 |
| 18 MERT PAN | | | 100.0 | 3.0 | 1 | 2 | 5 | 2 |
| 19 CORN CAN | | | 100.0 | 2.0 | 1 | 2 | 3 | 2 |
| 20 LINN BOR | | | 100.0 | 2.0 | 1 | 2 | 3 | 2 |
| 21 MAIA CAN | | | 100.0 | 1.5 | 1 | 2 | 2 | 2 |
| 22 ASTE CIL | | | 100.0 | 1.0 | 1 | 2 | 1 | 2 |
| 23 GALI BOR | | | 100.0 | 1.0 | 1 | 2 | 1 | 2 |
| 24 LATH OCH | | | 100.0 | 1.0 | 1 | 2 | 1 | 2 |
| 25 PETA PAL | | | 100.0 | 1.0 | 1 | 2 | 1 | 2 |
| 26 VICI AME | | | 100.0 | 1.0 | 1 | 2 | 1 | 2 |
| 27 VIOL REN | | | 100.0 | 1.0 | 1 | 2 | 1 | 2 |
| 28 ACTA RUB | | | 50.0 | 1.5 | 3 | 2 | | |
| 29 FRAG VIR | | | 50.0 | 1.5 | 3 | 2 | | |
| 30 RUBU PUB | | | 50.0 | 1.5 | | | 3 | 2 |
| 31 EQUI ARV | | | 50.0 | 0.5 | | | 1 | 2 |
| 32 MITE NUD | | | 50.0 | 0.5 | 1 | 2 | | |
| 33 PYRO ASA | | | 50.0 | 0.5 | | | 1 | 2 |
| D LAYER | | | | | | | | |
| 34 CALA CAN | | | 100.0 | 5.0 | 5 | 2 | 5 | 2 |
| EX LAYER | | | 100.0 | 1.0 | 1 | 2 | 1 | 2 |
| 35 PLAG CUS | | | 100.0 | 1.0 | 1 | 2 | 1 | 2 |

ASPEN/CRANBERRY/SARSAPARILLA

| LEVEL | ZONE | ASST TYPE |
|----------------------------|------|-----------|
| ECOSYM UNIT A | 3 | |
| PLOT NUMBER | | |
| NUMBER OF SPECIES PER PLOT | | |
| SPECIES | | |
| 36 BRAC CAM | | |
| 37 BRAC SAL | | |
| 38 PTIL CRI | | |

| PLOT NUMBER | MEAN | 4B | 4B | 4B |
|------------------------------|-------|------|------|------|
| TOWNSHIP & RANGE | | LO22 | LO21 | LO09 |
| MERIDIAN | | 6612 | 6612 | 6612 |
| MAPSHEET | | W 4 | W 4 | W 4 |
| PHYSIOGRAPHIC SUBREGION | | 73L | 73L | 73L |
| GEOMORPHIC SYSTEM | | 12 | 12 | 12 |
| ECOSECTION | 590.0 | 600 | 600 | 570 |
| ELEVATION(MASL) | | | | |
| SLOPE(%) | 8.7 | 3 | 18 | 5 |
| ASPECT(DEG) | | 340 | 20 | 90 |
| ENVIRONMENT/SOILS | | | | |
| ECOLOGICAL MOISTURE REGIME | | SM | SM | SM |
| NUTRIENT REGIME | | SM | SM | SM |
| OVERLYING MATERIAL | | M | Gfb | Gfb |
| UNDERLYING MATERIAL | | | M | M |
| EROSION/DEPOSITION | | | | |
| SOIL SUBGROUP | | BR | E | BR |
| SOIL GREAT GROUP | | GL | EB | GL |
| SOIL DRAINAGE | | W | W | Mw |
| SOLUM THICKNESS(CM) | 55.7 | 31 | 85 | 51 |
| TYPE & DEPTH TO RESTRICT(CM) | | | | |
| THICKNESS LFH(CM) | 10.0 | 10 | 13 | 7 |
| pH-LFH | 0.0 | | | |
| -A | 4.8 | 6.0 | 4.0 | 4.4 |
| -B | 5.4 | 5.5 | 6.0 | 4.6 |
| -C | 6.7 | 7.0 | 7.0 | 6.0 |
| TEXTURE-A/1 | | SCL | LS | SL |
| -B/2 | | SCL | S | CL |
| -C/3 | | SCL | SCL | SCL |
| COARSE FRAGMENTS-B(%) | 70.0 | 70 | | |
| SEEPAGE(%) & MOTTILING(CM) | | | | |
| ROOTING DEPTH(CM) | 29.7 | 30 | 32 | 27 |
| VEGETATION | | | | |
| ASSOCIATION | | SW1 | SW1 | SW1 |
| STAND AGE(YR) | 74.0 | 46 | 86 | 90 |
| CANOPY HEIGHT(M) | 20.7 | 20 | 19 | 23 |
| MEAN ANNUAL INCREMENT | 0.0 | | | |
| STRATA COVERAGE(%) -A | 50.0 | 60 | 65 | 25 |
| -B | 45.0 | 95 | 15 | 25 |
| -C | 45.0 | 35 | 35 | 65 |
| -G | 12.7 | 12 | 1 | 25 |
| -D | 9.0 | 1 | 25 | 1 |
| -L | 0.0 | 0 | 0 | 0 |
| SURFACE SUBST(%) -DEAD WOOD | 23.3 | 30 | 20 | 20 |
| -BEDROCK | 0.0 | 0 | 0 | 0 |
| -STONES | 0.0 | 0 | 0 | 0 |
| -MIN. SOIL | 0.0 | 0 | 0 | 0 |
| -ORGANIC | 76.7 | 70 | 80 | 80 |
| -OPEN WATER | 0.0 | 0 | 0 | 0 |
| BIOMASS(KG/HA) -FORBS | 0.0 | | | |
| -GRAMINOIDS | 0.0 | | | |
| -BROWSE | 0.0 | | | |

| LEVEL | | ZONE | | ASSC TYPE | | WHITE SPRUCE-ASPEN/CRANBERRY/SARSAPARILLA | | | | | | | | | | RESOURCE INVENTORY | | | |
|----------------------------|--|------|--|-----------|--|--|--|--|--|--|--|--|--|--|--|--------------------|--|--|--|
| ECOSYM UNIT | | SW | | 1 | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) TABLE 7 | | | | | | | | | | EDMONTON, ALBERTA | | | |
| | | | | | | 10:17:22 NOV 27, 1984 | | | | | | | | | | | | | |
| | | | | | | PAGE 1 | | | | | | | | | | | | | |
| PLOT NUMBER | | | | | | | | | | | | | | | | | | | |
| NUMBER OF SPECIES PER PLOT | | | | | | | | | | | | | | | | | | | |
| SPECIES | | | | | | | | | | | | | | | | | | | |
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| PLOT NUMBER | AVERAGE VALUE | 4B LO22 | 4B LO21 | 4B LO09 |
|----------------------------|------------------|------------|------------|------------|
| NUMBER OF SPECIES PER PLOT | 35.3 | 38 | 33 | 35 |
| SPECIES | %P MC | %C SV | %C SV | %C SV |
| 34 DISP TRA | 66.7 0.7 | 1 2 | 1 2 | |
| 35 PYRO ASA | 66.7 0.7 | | 1 2 | 1 2 |
| 36 EPIL ANG | 33.3 10.0 | | | 30 2 |
| 37 LATH OCH | 33.3 2.3 | | | 7 2 |
| 38 ACHI MIL | 33.3 0.3 | | | 1 2 |
| 39 ACTA RUB | 33.3 0.3 | 1 2 | | |
| 40 GALI TRI | 33.3 0.3 | | | 1 2 |
| 41 THAL VEN | 33.3 0.3 | | | 1 2 |
| 42 TRIE BOR | 33.3 0.3 | 1 2 | | |
| 43 VICI AME | 33.3 0.3 | | | 1 2 |
| D LAYER | | | | |
| 44 CALA CAN | 100.0 12.0 | 10 2 | 1 2 | 25 2 |
| 45 ELYM INN | 33.3 0.7 | 2 2 | | |
| EX LAYER | | | | |
| 46 BRAC CAM | 66.7 0.7 | 1 2 | | 1 2 |
| 47 HYLO SPL | 33.3 3.3 | | 10 2 | |
| 48 PLAG DRU | 33.3 1.7 | | 5 2 | |
| 49 PLEU SCH | 33.3 1.7 | | 5 2 | |
| 50 PTIL CRI | 33.3 1.7 | | 5 2 | |
| 51 BRAC SAL | 33.3 0.7 | | 2 2 | |
| 52 EURH PUL | 33.3 0.3 | 1 2 | | |

| ENVIRONMENT/SOILS-VEGETATION TABLES | | TAMARACK-BLACK SPRUCE/SEDGE/MOSS | | RESOURCE INVENTORY | |
|-------------------------------------|--|----------------------------------|--|--------------------|--|
| TITLE : | | L | | TABLE 8 | |
| PLOT NUMBER | | MEAN | | 4B | |
| TOWNSHIP & RANGE | | LO10 | | LO10 | |
| MERIDIAN | | W 4 | | W 4 | |
| MAPSHEET | | 73L | | 12 | |
| PHYSIOGRAPHIC SUBREGION | | | | | |
| GEOMORPHIC SYSTEM | | | | | |
| ECOSECTION | | 580.0 | | 580 | |
| ELEVATION(MASL) | | 1.0 | | 1 | |
| SLOPE(%) | | | | | |
| ASPECT(DEG) | | 190 | | 190 | |
| ENVIRONMENT/SOILS : | | | | | |
| ECOLOGICAL MOISTURE REGIME | | | | SHD | |
| NUTRIENT REGIME | | | | 0 | |
| OVERLYING MATERIAL | | | | Ob | |
| UNDERLYING MATERIAL | | | | GF | |
| EROSION/DEPOSITION | | | | | |
| SOIL SUBGROUP | | | | TM | |
| SOIL GREAT GROUP | | | | F | |
| SOIL DRAINAGE | | | | VP | |
| SOLUM THICKNESS(CM) | | 125.0 | | 125 | |
| TYPE & DEPTH TO RESTRICT(CM) | | | | | |
| THICKNESS LFH(CM) | | 90.0 | | 90 | |
| PH-LFH | | 0.0 | | | |
| -A | | 0.0 | | | |
| -B | | 0.0 | | | |
| -C | | 0.0 | | | |
| TEXTURE-A/1 | | | | | |
| -B/2 | | | | | |
| -C/3 | | | | | |
| COARSE FRAGMENTS-B(%) | | 0.0 | | | |
| SEEPAGE(*) & MOTTILING(CM) | | | | * | |
| ROOTING DEPTH(CM) | | 0.0 | | | |
| VEGETATION : | | | | | |
| ASSOCIATION | | | | L1 | |
| STAND AGE(YR) | | 61.0 | | 61 | |
| CANOPY HEIGHT(M) | | 9.0 | | 9 | |
| MEAN ANNUAL INCREMENT | | 0.0 | | | |
| STRATA COVERAGE(%)--A | | 65.0 | | 65 | |
| -B | | 80.0 | | 80 | |
| -C | | 15.0 | | 15 | |
| -G | | 15.0 | | 15 | |
| -D | | 70.0 | | 70 | |
| -L | | 1.0 | | 1 | |
| SURFACE SUBST(%)--DEAD WOOD | | 3.0 | | 3 | |
| -BEDROCK | | 0.0 | | 0 | |
| -STONES | | 0.0 | | 0 | |
| -MIN SOIL | | 0.0 | | 0 | |
| -ORGANIC | | 96.0 | | 96 | |
| -OPEN WATER | | 1.0 | | 1 | |
| BIOMASS(KG/HA)--FORBS | | 0.0 | | | |
| -GRAMINOIDS | | 0.0 | | | |
| -BROWSE | | 0.0 | | | |

| LEVEL | | ZONE | ASSC | TYPE | TAMARACK-BLACK SPRUCE/SEDGE/MOSS | | | | RESOURCE INVENTORY | | | |
|----------------------------|------|-------|------|------|--|------|----|----|--------------------|--|--|--|
| ECOSYM UNIT | | L | 1 | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | EDMONTON, ALBERTA | | | |
| | | | | | 10:17:22 NOV 27, 1984 | | | | TABLE 8 PAGE 1 | | | |
| PLOT NUMBER | | | | | AVERAGE VALUE | 4B | | | | | | |
| NUMBER OF SPECIES PER PLOT | | | | | 32.0 | 32 | | | | | | |
| SPECIES | | | | | %P | MC | %C | SV | | | | |
| A1 LAYER | | | | | | | | | | | | |
| 1 | PICE | MAR | | | 100.0 | 5.0 | 5 | 2 | | | | |
| 2 | LARI | LAR | | | 100.0 | 2.0 | 2 | 2 | | | | |
| A2 LAYER | | | | | | | | | | | | |
| | PICE | MAR | | | 100.0 | 25.0 | 25 | 2 | | | | |
| | LARI | LAR | | | 100.0 | 20.0 | 20 | 2 | | | | |
| A3 LAYER | | | | | | | | | | | | |
| 3 | CETR | PIN | | | 100.0 | 15.0 | 15 | 2 | | | | |
| 4 | USNE | SOR | | | 100.0 | 15.0 | 15 | 2 | | | | |
| 5 | EVER | MES | | | 100.0 | 10.0 | 10 | 2 | | | | |
| 6 | BRYO | FUS | | | 100.0 | 5.0 | 5 | 2 | | | | |
| 7 | PARM | SUL | | | 100.0 | 5.0 | 5 | 2 | | | | |
| B1 LAYER | | | | | | | | | | | | |
| | PICE | MAR | | | 100.0 | 10.0 | 10 | 2 | | | | |
| | LARI | LAR | | | 100.0 | 5.0 | 5 | 2 | | | | |
| B2 LAYER | | | | | | | | | | | | |
| 8 | LEDU | GRO | | | 100.0 | 20.0 | 20 | 2 | | | | |
| | PICE | MAR | | | 100.0 | 20.0 | 20 | 2 | | | | |
| 9 | BETU | GLA | | | 100.0 | 15.0 | 15 | 2 | | | | |
| 10 | SALI | SER | | | 100.0 | 5.0 | 5 | 2 | | | | |
| | LARI | LAR | | | 100.0 | 2.0 | 2 | 2 | | | | |
| 11 | SALI | ATH | | | 100.0 | 1.0 | 1 | 2 | | | | |
| 12 | SALI | MYR | | | 100.0 | 1.0 | 1 | 2 | | | | |
| C LAYER | | | | | | | | | | | | |
| 13 | OXYC | MIC | | | 100.0 | 7.0 | 7 | 2 | | | | |
| 14 | SMIL | TRI | | | 100.0 | 5.0 | 5 | 2 | | | | |
| 15 | VACC | VIT | | | 100.0 | 2.0 | 2 | 2 | | | | |
| 16 | EPIL | ANG | | | 100.0 | 1.0 | 1 | 2 | | | | |
| 17 | MITE | NUD | | | 100.0 | 1.0 | 1 | 2 | | | | |
| D LAYER | | | | | | | | | | | | |
| 18 | CARE | AQU | | | 100.0 | 15.0 | 15 | 2 | | | | |
| | EX | LAYER | | | | | | | | | | |
| 19 | SPHA | FUS | | | 100.0 | 60.0 | 60 | 2 | | | | |
| 20 | AULA | PAL | | | 100.0 | 10.0 | 10 | 2 | | | | |
| 21 | POLY | STR | | | 100.0 | 5.0 | 5 | 2 | | | | |
| 22 | HELO | BLA | | | 100.0 | 1.0 | 1 | 2 | | | | |
| 23 | MYLI | ANO | | | 100.0 | 1.0 | 1 | 2 | | | | |
| EL LAYER | | | | | | | | | | | | |
| 24 | CLAD | MIT | | | 100.0 | 1.0 | 1 | 2 | | | | |
| 25 | PELT | HOR | | | 100.0 | 1.0 | 1 | 2 | | | | |
| 26 | PELT | POL | | | 100.0 | 1.0 | 1 | 2 | | | | |

| MEAN | 4B | |
|------------------------------|-------|-----|
| LO04 | | |
| 6612 | | |
| W 4 | | |
| 73L | | |
| 12 | | |
| PHYSIOGRAPHIC SUBREGION | | |
| GEOMORPHIC SYSTEM | | |
| ECOSECTION | | |
| ELEVATION(MASL) | 530.0 | 530 |
| SLOPE(%) | 0.0 | 0 |
| ASPECT(DEG) | | |
| ENVIRONMENT/SOILS : | | |
| ECOLOGICAL MOISTURE REGIME | | SHD |
| NUTRIENT REGIME | | PM |
| OVERLYING MATERIAL | | Ob |
| UNDERLYING MATERIAL | | |
| EROSION/DEPOSITION | | TY |
| SOIL SUBGROUP | | F |
| SOIL GREAT GROUP | | |
| SOIL DRAINAGE | | VP |
| SOLUM THICKNESS(CM) | 10.0 | 10 |
| TYPE & DEPTH TO RESTRICT(CM) | | |
| THICKNESS LFH(CM) | 10.0 | 10 |
| pH-LFH | 0.0 | |
| -A | 0.0 | |
| -B | 0.0 | |
| -C | 0.0 | |
| TEXTURE -A/1 | | |
| -B/2 | | |
| -C/3 | | |
| COARSE FRAGMENTS-B(%) | 0.0 | |
| SEEPAGE(*) & MOTTILING(CM) | | * |
| ROOTING DEPTH(CM) | 0.0 | |
| VEGETATION : | | |
| ASSOCIATION | | L2 |
| STAND AGE(YR) | 142.0 | 142 |
| CANOPY HEIGHT (M) | 10.0 | 10 |
| MEAN ANNUAL INCREMENT | 0.0 | |
| STRATA COVERAGE(%) -A | 4.0 | 4 |
| -B | 35.0 | 35 |
| -C | 15.0 | 15 |
| -G | 40.0 | 40 |
| -D | 80.0 | 80 |
| -L | 1.0 | 1 |
| SURFACE SUBST(%) -DEAD WOOD | 0.0 | 0 |
| -BEDROCK | 0.0 | 0 |
| -STONES | 0.0 | 0 |
| -MIN. SOIL | 0.0 | 0 |
| -ORGANIC | 97.0 | 97 |
| -OPEN WATER | 3.0 | 3 |
| BIOMASS(KG/HA) -FORBS | 0.0 | |
| -GRAMINOIDS | 0.0 | |
| -BROWSE | 0.0 | |

| LEVEL | | ZONE | ASSC | TYPE | TAMARACK/BIRCH/SEDGE/MOSS | | | | RESOURCE INVENTORY | | | |
|----------------------------|------|------|------|------|--|------|----|----|--------------------|--|--|--|
| ECOSYM UNIT | | L | 2 | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | EDMONTON, ALBERTA | | | |
| | | | | | 10:17:22 NOV 27, 1984 | | | | TABLE 9 PAGE 1 | | | |
| PLOT NUMBER | | | | | AVERAGE | 4B | | | | | | |
| NUMBER OF SPECIES PER PLOT | | | | | VALUE | LOO4 | | | | | | |
| SPECIES | | | | | %P | MC | %C | SV | | | | |
| A1 LAYER | | | | | | | | | | | | |
| 1 | LARI | LAR | | | 100.0 | 2.0 | 2 | 2 | | | | |
| A2 LAYER | | | | | | | | | | | | |
| | LARI | LAR | | | 100.0 | 2.0 | 2 | 2 | | | | |
| A3 LAYER | | | | | | | | | | | | |
| 2 | CETR | HAL | | | 100.0 | 5.0 | 5 | 2 | | | | |
| 3 | CETR | PIN | | | 100.0 | 5.0 | 5 | 2 | | | | |
| 4 | EVER | MES | | | 100.0 | 5.0 | 5 | 2 | | | | |
| 5 | HYPO | PHY | | | 100.0 | 5.0 | 5 | 2 | | | | |
| 6 | PARM | FLA | | | 100.0 | 5.0 | 5 | 2 | | | | |
| 7 | PARM | SUL | | | 100.0 | 5.0 | 5 | 2 | | | | |
| B1 LAYER | | | | | | | | | | | | |
| | LARI | LAR | | | 100.0 | 5.0 | 5 | 2 | | | | |
| B2 LAYER | | | | | | | | | | | | |
| 8 | BETU | PUM | | | 100.0 | 45.0 | 45 | 2 | | | | |
| | LARI | LAR | | | 100.0 | 30.0 | 30 | 2 | | | | |
| 9 | SALI | CAN | | | 100.0 | 1.0 | 1 | 2 | | | | |
| C LAYER | | | | | | | | | | | | |
| 10 | CALT | PAL | | | 100.0 | 5.0 | 5 | 2 | | | | |
| 11 | MENY | TRI | | | 100.0 | 2.0 | 2 | 2 | | | | |
| 12 | SMIL | TRI | | | 100.0 | 2.0 | 2 | 2 | | | | |
| 13 | GALI | LAB | | | 100.0 | 1.0 | 1 | 2 | | | | |
| 14 | LUZU | PAR | | | 100.0 | 1.0 | 1 | 2 | | | | |
| 15 | LYSI | THY | | | 100.0 | 1.0 | 1 | 2 | | | | |
| 16 | MITE | NUD | | | 100.0 | 1.0 | 1 | 2 | | | | |
| 17 | POTE | PAL | | | 100.0 | 1.0 | 1 | 2 | | | | |
| 18 | RUME | BRI | | | 100.0 | 1.0 | 1 | 2 | | | | |
| D LAYER | | | | | | | | | | | | |
| 19 | CARE | AQU | | | 100.0 | 30.0 | 30 | 2 | | | | |
| 20 | CARE | PRA | | | 100.0 | 10.0 | 10 | 2 | | | | |
| EX LAYER | | | | | | | | | | | | |
| 21 | AULA | PAL | | | 100.0 | 40.0 | 40 | 2 | | | | |
| 22 | BRYU | PSE | | | 100.0 | 10.0 | 10 | 2 | | | | |
| 23 | CALL | GIG | | | 100.0 | 5.0 | 5 | 2 | | | | |
| 24 | HELO | BLA | | | 100.0 | 5.0 | 5 | 2 | | | | |
| 25 | HYPN | PRA | | | 100.0 | 5.0 | 5 | 2 | | | | |
| 26 | PLAG | ELL | | | 100.0 | 5.0 | 5 | 2 | | | | |
| EL LAYER | | | | | | | | | | | | |
| 27 | PELT | CAN | | | 100.0 | 1.0 | 1 | 2 | | | | |

| ENVIRONMENT/SOILS-VEGETATION TABLES | | WILLOW/SEDE/MOSS | | RESOURCE INVENTORY | |
|-------------------------------------|--|------------------|--|--------------------|--|
| TITLE : | | TABLE | | TABLE | |
| B | | B | | 10 | |
| PLOT NUMBER | | MEAN | | 4B | |
| TOWNSHIP & RANGE | | | | LO08 LO12 LO20 | |
| MERIDIAN | | | | 6612 6612 6612 | |
| MAPSHEET | | | | W 4 W 4 W 4 | |
| PHYSIOGRAPHIC SUBREGION | | | | 73L 73L 73L | |
| GEOMORPHIC SYSTEM | | | | 12 12 12 | |
| ECOSECTION | | | | | |
| ELEVATION(MASL) | | 573.3 | | 580 570 570 | |
| SLOPE(%) | | 0.7 | | O 1 1 | |
| ASPECT(DEG) | | | | 248 | |
| ENVIRONMENT/SOILS : | | | | | |
| ECOLOGICAL MOISTURE REGIME | | SHD | | SHD SHD SHG | |
| NUTRIENT REGIME | | PM | | E PM | |
| OVERLYING MATERIAL | | Ob | | Obv GF | |
| EROSION/DEPOSITION | | GF | | GF M | |
| SOIL SUBGROUP | | TY | | T R | |
| SOIL GREAT GROUP | | F | | M HG | |
| SOIL DRAINAGE | | VP | | VP P | |
| SOLUM THICKNESS(CM) | | 27.0 | | 5 60 16 | |
| TYPE & DEPTH TO RESTRICT(CM) | | 11.0 | | 5 15 13 | |
| THICKNESS LFH(CM) | | 0.0 | | | |
| pH-LFH | | 0.0 | | | |
| -A | | 0.0 | | | |
| -B | | 0.0 | | | |
| -C | | 0.0 | | | |
| TEXTURE -A/1 | | | | | |
| -B/2 | | | | | |
| -C/3 | | | | | |
| COARSE FRAGMENTS-B(%) | | 0.0 | | | |
| SEEPAGE(+) & MOTTILING(CM) | | * | | * 30 32 | |
| ROOTING DEPTH(CM) | | 31.0 | | | |
| VEGETATION : | | | | | |
| ASSOCIATION | | B2 | | B2 B2 | |
| STAND AGE(YR) | | 0.0 | | | |
| CANOPY HEIGHT(M) | | 0.0 | | | |
| MEAN ANNUAL INCREMENT | | 0.0 | | | |
| STRATA COVERAGE(%) -A | | 5.0 | | 5 | |
| -B | | 40.0 | | 25 80 15 | |
| -C | | 21.7 | | 10 25 30 | |
| -D | | 78.3 | | 90 90 55 | |
| -L | | 16.7 | | 0 35 15 | |
| SURFACE SUBST(%) -DEAD WOOD | | 0.7 | | 1 0 1 | |
| -BEDROCK | | 10.7 | | 0 30 2 | |
| -STONES | | 0.0 | | 0 0 0 | |
| -MIN. SOIL | | 0.0 | | 0 0 0 | |
| -ORGANIC | | 89.0 | | 99 70 98 | |
| -OPEN WATER | | 0.0 | | 0 0 0 | |
| BIOMASS(KG/HA) -FORBS | | 0.0 | | | |
| -GRAMINOIDS | | 0.0 | | | |
| -BROWSE | | 0.0 | | | |

| LEVEL | | ZONE | ASSC TYPE | WILLOW/SEDGE/MOSS | | | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | RESOURCE INVENTORY | |
|----------------------------|--|---------------|-----------|-------------------|------|------|------|--|------|------|------|-----------------------|------|
| ECOSYM UNIT B | | 2 | | | | | | | | | | EDMONTON, ALBERTA | |
| | | | | | | | | | | | | 10:17:22 NOV 27, 1984 | |
| | | | | | | | | | | | | TABLE 10 PAGE 1 | |
| PLOT NUMBER | | | | | | | | | | | | | |
| NUMBER OF SPECIES PER PLOT | | | | | | | | | | | | | |
| SPECIES | | | | | | | | | | | | | |
| A2 LAYER | | | | | | | | | | | | | |
| 1 BETU PAP | | AVERAGE VALUE | LO08 | LO12 | LO20 | 4B | 4B | 4B | 4B | 4B | 4B | 4B | 4B |
| 2 SALI MAC | | 66.7 3.3 | | | | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 |
| 3 ALNU TEN | | 33.3 20.0 | | | | 60 2 | 60 2 | 60 2 | 60 2 | 60 2 | 60 2 | 60 2 | 60 2 |
| A3 LAYER | | 33.3 5.0 | | | | 15 2 | 15 2 | 15 2 | 15 2 | 15 2 | 15 2 | 15 2 | 15 2 |
| 4 PARM SUL | | 100.0 6.7 | 5 2 | 5 2 | 5 2 | 10 2 | 10 2 | 10 2 | 10 2 | 10 2 | 10 2 | 10 2 | 10 2 |
| 5 USNE SOR | | 100.0 5.0 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 |
| 6 CETR HAL | | 66.7 3.3 | | | | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 |
| 7 CETR PIN | | 66.7 3.3 | | | | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 |
| 8 EVER MES | | 66.7 3.3 | | | | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 |
| B1 LAYER | | | | | | | | | | | | | |
| 9 SALI PLA | | 33.3 25.0 | | | | 75 2 | 75 2 | 75 2 | 75 2 | 75 2 | 75 2 | 75 2 | 75 2 |
| SALI MAC | | 33.3 10.0 | | | | 30 2 | 30 2 | 30 2 | 30 2 | 30 2 | 30 2 | 30 2 | 30 2 |
| B2 LAYER | | | | | | | | | | | | | |
| 10 ALNU CRI | | 66.7 3.3 | | | | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 |
| BETU PAP | | 66.7 1.0 | | | | 2 2 | 2 2 | 2 2 | 2 2 | 2 2 | 2 2 | 2 2 | 2 2 |
| 11 RIBE OXY | | 66.7 0.7 | | | | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 |
| SALI MAC | | 33.3 6.7 | | | | 20 2 | 20 2 | 20 2 | 20 2 | 20 2 | 20 2 | 20 2 | 20 2 |
| 12 SALI SER | | 33.3 5.0 | 15 2 | 15 2 | 15 2 | | | | | | | | |
| 13 BETU GLA | | 33.3 1.7 | 5 2 | 5 2 | 5 2 | | | | | | | | |
| 14 PICE GLA | | 33.3 1.7 | | | | | | | | | | | |
| 15 RIBE TRI | | 33.3 1.7 | | | | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 | 5 2 |
| 16 SALI ATH | | 33.3 1.7 | 5 2 | 5 2 | 5 2 | | | | | | | | |
| ALNU TEN | | 33.3 0.3 | 1 2 | 1 2 | 1 2 | | | | | | | | |
| 17 CORN STO | | 33.3 0.3 | | | | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 |
| 18 LONI INV | | 33.3 0.3 | | | | | | | | | | | |
| 19 RUBU STR | | 33.3 0.3 | | | | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 |
| 20 SYMP ALB | | 33.3 0.3 | | | | | | | | | | | |
| C LAYER | | | | | | | | | | | | | |
| 21 CALT PAL | | 66.7 5.3 | | | | 15 2 | 15 2 | 15 2 | 15 2 | 15 2 | 15 2 | 15 2 | 15 2 |
| 22 EQUI SYL | | 33.3 3.3 | | | | | | | | | | | |
| 23 POTE PAL | | 33.3 3.3 | 10 2 | 10 2 | 10 2 | | | | | | | | |
| 24 MERT PAN | | 33.3 1.7 | | | | | | | | | | | |
| 25 ASTE PUN | | 33.3 1.0 | | | | | | | | | | | |
| 26 MITE NUD | | 33.3 0.7 | | | | 2 2 | 2 2 | 2 2 | 2 2 | 2 2 | 2 2 | 2 2 | 2 2 |
| 27 PYRO ASA | | 33.3 0.7 | | | | 2 2 | 2 2 | 2 2 | 2 2 | 2 2 | 2 2 | 2 2 | 2 2 |
| 28 ACHI MIL | | 33.3 0.3 | | | | | | | | | | | |
| 29 ACHI SIB | | 33.3 0.3 | | | | | | | | | | | |
| 30 ASTE CIL | | 33.3 0.3 | | | | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 |
| 31 EPIL ANG | | 33.3 0.3 | | | | | | | | | | | |
| 32 EPIL PAL | | 33.3 0.3 | 1 2 | 1 2 | 1 2 | | | | | | | | |
| 33 EQUI FLU | | 33.3 0.3 | 1 2 | 1 2 | 1 2 | | | | | | | | |
| 34 EQUI PRA | | 33.3 0.3 | | | | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 |
| 35 FRAG VIR | | 33.3 0.3 | | | | | | | | | | | |
| 36 GALI BOR | | 33.3 0.3 | | | | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 |
| 37 GALI LAB | | 33.3 0.3 | 1 2 | 1 2 | 1 2 | | | | | | | | |
| 38 ORTH SEC | | 33.3 0.3 | | | | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 |
| 39 PARN FIM | | 33.3 0.3 | | | | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 | 1 2 |

| LEVEL | | ZONE | ASSC TYPE | WILLOW/SEDEGE/MOSS | | | | | | | | | | RESOURCE INVENTORY | | | | | | | | | |
|----------------------------|--|------|-----------|--|------|---------|----|---------|------|---------|-----|--|--|--|--|--|--|--|--|--|--|--|--|
| ECOSYM UNIT B | | 2 | | PRESENCE (%P), MEAN COVER (MC), PERCENT COVER (%C), SOCIABILITY (S), VIGOR (V) | | | | | | | | | | EDMONTON, ALBERTA NOV 27, 1984 10:17:22 TABLE 10 PAGE 2 | | | | | | | | | |
| PLOT NUMBER | | | | AVERAGE VALUE | | 4B LO08 | | 4B LO12 | | 4B LO20 | | | | | | | | | | | | | |
| NUMBER OF SPECIES PER PLOT | | | | 29.7 | | 19 | | 34 | | 36 | | | | | | | | | | | | | |
| SPECIES | | | | %P | MC | %C | SV | %C | SV | %C | SV | | | | | | | | | | | | |
| 40 RUBU PUB | | | | 33.3 | 0.3 | | | | | | 1 2 | | | | | | | | | | | | |
| 41 RUME OCC | | | | 33.3 | 0.3 | 1 2 | | | | | | | | | | | | | | | | | |
| 42 SOLI CAN | | | | 33.3 | 0.3 | | | | | 1 2 | | | | | | | | | | | | | |
| 43 STEL LON | | | | 33.3 | 0.3 | 1 2 | | | | | | | | | | | | | | | | | |
| 44 URTI DIO | | | | 33.3 | 0.3 | | | 1 2 | | | | | | | | | | | | | | | |
| 45 VALE DIO | | | | 33.3 | 0.3 | | | | | 1 2 | | | | | | | | | | | | | |
| 46 VICI ANE | | | | 33.3 | 0.3 | | | | | 1 2 | | | | | | | | | | | | | |
| D LAYER | | | | | | | | | | | | | | | | | | | | | | | |
| 47 CALA CAN | | | | 66.7 | 26.7 | | | 40 2 | 40 2 | | | | | | | | | | | | | | |
| 48 BROM CIL | | | | 66.7 | 10.0 | | | 20 2 | 10 2 | | | | | | | | | | | | | | |
| 49 CARE DIS | | | | 33.3 | 13.3 | | | 40 2 | | | | | | | | | | | | | | | |
| 50 CARE LIM | | | | 33.3 | 10.0 | 30 2 | | | | | | | | | | | | | | | | | |
| 51 CARE AQU | | | | 33.3 | 6.7 | 20 2 | | | | | | | | | | | | | | | | | |
| 52 CARE BRU | | | | 33.3 | 6.7 | | | 20 2 | | | | | | | | | | | | | | | |
| 53 AGRO TRA | | | | 33.3 | 1.7 | | | | | 5 2 | | | | | | | | | | | | | |
| 54 AGRO SCA | | | | 33.3 | 1.0 | 3 2 | | | | | | | | | | | | | | | | | |
| 55 AGRO STO | | | | 33.3 | 0.7 | | | | | 2 2 | | | | | | | | | | | | | |
| 56 CALA INE | | | | 33.3 | 0.7 | 2 2 | | | | | | | | | | | | | | | | | |
| EX LAYER | | | | | | | | | | | | | | | | | | | | | | | |
| 57 AULA PAL | | | | 100.0 | 7.0 | 10 2 | | 10 2 | | | | | | | | | | | | | | | |
| 58 PLEU SCH | | | | 66.7 | 0.7 | | | 1 2 | 1 2 | | | | | | | | | | | | | | |
| 59 DREP POL | | | | 33.3 | 26.7 | 80 2 | | | | | | | | | | | | | | | | | |
| 60 BRAC SAL | | | | 33.3 | 3.3 | | | 10 2 | | | | | | | | | | | | | | | |
| 61 DREP ADU | | | | 33.3 | 3.3 | | | 10 2 | | | | | | | | | | | | | | | |
| 62 CLIM DEN | | | | 33.3 | 1.7 | | | | | 5 2 | | | | | | | | | | | | | |
| 63 HYLO SPL | | | | 33.3 | 1.7 | | | | | 5 2 | | | | | | | | | | | | | |
| 64 PLAG ELL | | | | 33.3 | 1.7 | | | 5 2 | | | | | | | | | | | | | | | |
| 65 THUI REC | | | | 33.3 | 1.7 | | | | | 5 2 | | | | | | | | | | | | | |
| 66 BRAC STA | | | | 33.3 | 0.3 | 1 2 | | | | | | | | | | | | | | | | | |
| 67 PLAG MED | | | | 33.3 | 0.3 | | | | | 1 2 | | | | | | | | | | | | | |
| EL LAYER | | | | | | | | | | | | | | | | | | | | | | | |
| 68 PELT CAN | | | | 33.3 | 0.3 | | | | | 1 2 | | | | | | | | | | | | | |

| ECOSYSTEMATIC UNITS | P | P | A | A | A | A | SW | L | L | B |
|--|--------|-----|-----|--------|---------|--------|-------|------|------|---------|
| | 2 | 3 | 1a | 1b | 2 | 3 | 1 | 1 | 2 | 2 |
| SPECIES | | | | | | | | | | |
| PRESENCE CLASS AND MEAN SPECIES SIGNIFICANCE | | | | | | | | | | |
| ABIE BAL | | III | 0.5 | III | 0.5 | | II | 15.0 | | II 0.3 |
| ACHI MIL | | | | | | | II | 0.3 | | II 0.3 |
| ACHI SIB | | | | | | III | 1.5 | II | 0.3 | |
| ACTA RUB | | | | | | | | | | II 1.0 |
| AGRO SCA | | | | | | | | | | II 0.7 |
| AGRO STO | | | | | | | | | | II 1.7 |
| AGRO TRA | | | | | | | | | | IV 3.3 |
| ALNU CRI | V 10.0 | III | 5.0 | V 17.5 | | III | 2.0 | II | 0.3 | II 5.0 |
| ALNU TEN | | | | | | | | | | |
| AMEL ALN | | V | 1.5 | III | 1.0 | V | 4.8 | V | 5.0 | IV 1.0 |
| ANTE NEG | V 1.0 | | | | | IV | 11.8 | III | 10.0 | IV 8.3 |
| ARAL NUD | | | | | | | | | | |
| ARCT UVA | | III | 2.5 | V 40.0 | | V | 4.5 | V | 1.0 | V 1.3 |
| ASTE CIL | | V | 1.0 | V 2.0 | | | | | | II 0.3 |
| ASTE PUN | | | | | | | | | | II 1.0 |
| AULA PAL | | | | | | | | V | 10.0 | V 40.0 |
| BETU GLA | | | | | | | | | | II 1.7 |
| BETU OCC | V 2.0 | V | 6.0 | III | 7.5 | III | 4.5 | III | 5.0 | IV 3.3 |
| BETU PAP | | | | | | | | | | |
| BETU PUM | | | | | | | | | | V 45.0 |
| BRAC CAM | | | | | | II | 0.3 | III | 0.5 | II 3.3 |
| BRAC SAL | | III | 1.0 | III | 0.5 | II | 0.3 | III | 0.5 | II 0.3 |
| BRAC STA | | | | | | | | | | IV 10.0 |
| BROM CIL | | III | 7.5 | | | II | 0.5 | | | |
| BRYO FUS | V 5.0 | | | | | | | V | 5.0 | V 10.0 |
| BRYU PSE | | | | | | | | | | |
| CALA CAN | V 5.0 | III | 7.5 | V 1.5 | V 3.5 | V 12.5 | V 5.0 | V | 12.0 | IV 26.7 |
| CALA INE | | | | | | | | | | II 0.7 |
| CALL GIG | | | | | | | | | | V 5.0 |
| CALT PAL | | | | | | | | | | V 5.0 |
| CARE AQU | | | | | | | | | | V 30.0 |
| CARE BRU | | | | | | | | | | II 6.7 |
| CARE DIS | | | | | | | | | | II 13.3 |
| CARE LIM | | | | | | | | | | II 10.0 |
| CARE PRA | | | | | | | | | | |
| CERT PIN | V 10.0 | III | 2.5 | III | 2.5 | II | 1.3 | III | 2.5 | V 5.0 |
| CETR HAL | V 10.0 | V | 5.0 | III | 2.5 | III | 2.5 | V | 5.0 | V 5.0 |
| CETR PIN | V 10.0 | V | 5.0 | III | 2.5 | IV | 3.8 | V | 5.0 | V 15.0 |
| CLAD CLO | | | | III | 2.5 | III | 2.5 | | | V 10.0 |
| CLAD CRI | V 1.0 | | | | | | | | | V 5.0 |
| CLAD DEF | V 1.0 | | | | | | | | | V 5.0 |
| CLAD GRA | V 1.0 | | | | | | | | | V 5.0 |
| CLAD MIT | | III | 0.5 | | | | | | | V 1.0 |
| CLAD RAN | V 30.0 | | | | | | | | | |
| CLIM DEN | | | | | | | | | | II 1.7 |
| CORN CAN | V 3.0 | V | 8.0 | V 5.0 | V 7.0 | III | 0.5 | V | 2.0 | II 0.3 |
| CORN STO | | | | V 5.5 | | III | 5.0 | III | 0.5 | |
| CORY COR | | | | | IV 18.8 | III | 0.5 | III | 1.0 | |

| ECOSYSTEMATIC UNITS | | P | P | A | A | A | A | A | SW | L | L | B |
|--|--------|---------|---------|---------|---------|---------|---------|--------|---------|--------|--------|---------|
| | | 2 | 3 | 1a | 1b | 2 | 3 | 1 | 1 | 1 | 2 | 2 |
| SPECIES | | | | | | | | | | | | |
| PRESENCE CLASS AND MEAN SPECIES SIGNIFICANCE | | | | | | | | | | | | |
| DICR POL | | V 1.0 | | | III 0.5 | III 0.5 | | | IV 0.7 | | | II 3.3 |
| DISP TRA | | | | | | | | | | | | II 26.7 |
| DREP ADU | | | | | | | | | | | | |
| DREP POL | | | | | | | | | | | | |
| ELYM INN | | | V 15.0 | | III 8.8 | III 7.5 | | | II 0.7 | | | |
| EPIL ANG | V 1.0 | III 0.5 | V 1.0 | V 1.8 | V 10.5 | V 10.0 | | | II 10.0 | V 1.0 | | II 0.3 |
| EPIL PAL | | | | | | | | | | | | II 0.3 |
| EQUI ARV | | III 0.5 | | | III 0.5 | III 0.5 | | | | | | |
| EQUI FLU | | | | | | | | | | | | II 0.3 |
| EQUI PRA | | | | | | | | | | | | II 0.3 |
| EQUI SYL | | | | | | | | | | | | II 3.3 |
| EURH PUL | | | | | | | | | II 0.3 | | | |
| EVER MES | V 5.0 | III 2.5 | III 2.5 | III 2.5 | III 2.5 | III 2.5 | III 2.5 | IV 3.3 | V 10.0 | V 5.0 | IV 3.3 | |
| FRAG VIR | V 1.0 | V 5.5 | V 2.0 | IV 0.8 | V 1.0 | III 1.5 | IV 1.0 | | | | | II 0.3 |
| GALI BOR | | III 1.5 | V 1.0 | V 1.5 | III 0.5 | V 1.0 | | V 1.7 | | | | II 0.3 |
| GALI LAB | | | | | | | | | | V 1.0 | II 0.3 | |
| GALI TRI | | | | | III 0.3 | III 0.5 | | II 0.3 | | | | |
| GEUM ALL | | | | | | | | | | | | |
| HAPL MIC | | | III 0.5 | | | | | | | V 1.0 | V 5.0 | |
| HELO BLA | | | | | II 0.3 | | | | | | | II 1.7 |
| HERA LAN | | | | | | | | | II 3.3 | | | |
| HYLO SPL | | | | | | | | | | V 5.0 | | |
| HYPN PRA | | | | | | | | | | V 5.0 | | |
| HYPO PHY | V 10.0 | | III 2.5 | II 1.3 | | | | | | | | |
| UBRA CCA M | | | III 0.5 | | | | | | | | | |
| LARI LAR | | | | | | | | | | | | |
| LATH OCH | V 1.0 | III 0.5 | V 1.0 | V 1.3 | III 0.5 | V 1.0 | | II 2.3 | V 20.0 | V 30.0 | | |
| LEDU GRO | V 30.0 | V 11.5 | | | | | | | | | | |
| LILI PHI | | | | II 0.3 | | | | | | V 20.0 | | |
| LINN BOR | | V 7.5 | V 7.5 | IV 5.3 | III 0.5 | V 2.0 | | V 1.3 | | | | |
| LONI INV | V 1.0 | III 0.5 | III 1.5 | | III 1.5 | | | II 3.3 | | | II 0.3 | |
| LUZU PAR | | | | | | | | | | V 1.0 | | |
| LYSI THY | | | | | | | | | | V 1.0 | | |
| MAIA CAN | | III 1.5 | V 1.0 | V 1.3 | V 1.0 | V 1.5 | | V 1.3 | | | | |
| MENY TRI | | | | | | | | | | V 2.0 | | |
| MERT PAN | | | III 0.5 | IV 0.8 | III 1.5 | V 3.0 | | V 2.0 | | | II 1.7 | |
| MITE NUD | | | V 1.0 | III 0.5 | III 0.5 | V 1.0 | | V 1.0 | V 1.0 | V 1.0 | II 0.7 | |
| MYLI AND | | | | | | | | | | | | |
| ORTH OBT | | | | | III 2.5 | | | | | | | |
| ORTH SEC | | III 1.0 | | | | | | | | | | II 0.3 |
| ORYZ PUN | V 1.0 | | | | | | | | | V 7.0 | | |
| OXYC MIC | | | | | | | | | | | | |

| ECOSYSTEMATIC UNITS | | P | P | A | A | A | A | A | SW | L | L | B |
|--|--------|----------|---------|---------|---------|---------|---------|--------|--------|--------|-------|--------|
| | | 2 | 3 | 1a | 1b | 2 | 3 | 1 | 1 | 1 | 2 | 2 |
| SPECIES | | | | | | | | | | | | |
| PRESENCE CLASS AND MEAN SPECIES SIGNIFICANCE | | | | | | | | | | | | |
| PARM FLA | V 10.0 | III 2.5 | III 2.5 | III 2.5 | III 2.5 | V 5.0 | V 5.0 | V 5.0 | V 6.7 | V 5.0 | V 5.0 | V 6.7 |
| PARM SUL | | III 2.5 | III 2.5 | III 2.5 | III 2.5 | V 5.0 | V 5.0 | V 5.0 | V 6.7 | V 5.0 | V 5.0 | II 0.3 |
| PARM FIM | | III 0.5 | III 0.5 | III 0.5 | III 0.5 | | | | | | | |
| PELT APT | | III 0.5 | III 0.5 | III 0.5 | III 0.5 | | | | | | | |
| PELT CAN | | III 0.5 | III 0.5 | III 0.5 | III 0.5 | | | | | | | |
| PELT HOR | | | | | | | | | | | | |
| PELT POL | | | | | | | | | | | | |
| PETA PAL | V 10.0 | V 1.5 | V 3.0 | V 1.8 | V 4.5 | V 1.0 | V 1.0 | V 15.0 | V 1.0 | V 25.0 | | II 1.7 |
| PICE GLA | V 2.0 | V 5.0 | | | V 3.0 | V 1.0 | V 1.0 | | | | | |
| PICE MAR | V 5.0 | III 15.0 | | | | | | | | | | |
| PINU BAN | | III 0.5 | | | | | | | | | | |
| PLAG CUS | | | | | | | | | | | | |
| PLAG DRU | | | | | | | | | | | | |
| PLAG ELL | | | | | | | | | | | | |
| PLAG MED | | | | | | | | | | | | |
| PLEU SCH | V 3.0 | V 1.0 | | II 0.3 | | | | | II 1.7 | | | II 1.7 |
| POLY JUN | V 1.0 | | | | | | | | | | | |
| POLY STR | | | | | | | | | | | | |
| POPU BAL | V 5.0 | V 10.0 | V 5.0 | IV 3.8 | V 1.0 | III 7.5 | III 7.5 | V 23.3 | II 1.7 | V 5.0 | | II 0.3 |
| POPU TRE | | | V 45.0 | V 50.0 | V 15.0 | V 52.5 | V 52.5 | | | | | IV 0.7 |
| POTE PAL | | | V 3.0 | II 1.3 | III 0.5 | III 1.0 | III 1.0 | | II 1.7 | | | |
| PRUN VIR | | | V 7.5 | V 6.3 | V 5.0 | V 7.5 | V 7.5 | | II 1.7 | | | |
| PTIL CRI | | | V 1.0 | II 1.0 | V 1.0 | III 0.5 | III 0.5 | | IV 0.7 | | | |
| PYLA POL | | | V 1.0 | II 1.3 | III 1.3 | III 1.3 | III 1.3 | | | | | |
| PYRO ASA | | | | | | | | | | | | |
| PYRO SEC | | | | | | | | | | | | |
| RAMA FAR | | | | | III 2.5 | III 2.5 | III 2.5 | | IV 3.3 | | | |
| RAMA MIN | | | | | III 0.5 | III 0.5 | III 0.5 | | | | | |
| RIBE LAC | | | | | | | | | II 0.3 | | | IV 0.7 |
| RIBE OXY | | | | | | | | | II 0.3 | | | II 1.7 |
| RIBE TRI | | | | | | | | | II 0.3 | | | |
| ROSA ACI | | | | | | | | | V 3.0 | | | |
| RUBU PUB | | | V 1.5 | V 6.5 | V 8.8 | V 7.5 | V 10.0 | | IV 1.0 | | | II 0.3 |
| RUBU STR | | | III 1.5 | V 4.0 | V 3.8 | III 1.5 | III 1.5 | | IV 1.0 | | | II 0.3 |
| RUME BRI | | | III 0.5 | | | | V 1.5 | | | | V 1.0 | II 0.3 |
| RUME OCC | | | | | | | | | | | | |
| SALI ATH | | | | | | | | | | | | |
| SALI BEB | V 1.0 | V 5.0 | III 2.5 | V 5.5 | III 7.5 | III 3.5 | III 3.5 | IV 3.3 | | V 1.0 | | II 1.7 |
| SALI CAN | | | | | | | | | | | | |
| SALI MAC | | | | | | | | | | | | |
| SALI MYR | | | | | | | | | | | | |
| SALI PLA | | | | | | | | | | | | |
| SALI SER | | | | | | | | | | | | |
| SANI MAR | | | | | II 0.3 | | | | | | | |
| SCHI PUR | | III 0.5 | | | | | | | | | | |
| SHEP CAN | | III 2.5 | | | | | | | | | | |
| SMIL TRI | | | | | | | | | | | | |
| SOLI CAN | | | | | | | | | | | | |
| SPHA FUS | | | | | | | | | | | | |

| ECOSYSTEMATIC UNITS | | P | P | A | A | A | A | A | SW | L | L | B |
|--|--|--------|---------|---------|---------|---------|---------|---------|--------|--------|---|--------|
| | | 2 | 3 | 1a | 1b | 2 | 3 | 3 | 1 | 1 | 2 | 2 |
| SPECIES | | | | | | | | | | | | |
| PRESENCE CLASS AND MEAN SPECIES SIGNIFICANCE | | | | | | | | | | | | |
| STEL LON | | | | III 0.5 | | | | | | | | II 0.3 |
| STRE AMP | | | | III 1.0 | V 1.5 | III 1.0 | III 0.5 | | IV 0.7 | | | II 0.3 |
| SYMP ALB | | | | | | | | | | | | |
| THAL VEN | | | | | | II 0.5 | | | II 0.3 | | | II 1.7 |
| THUI REC | | | | | | | | | | | | |
| TOME NIT | | V 1.0 | | | | | | | II 0.3 | | | |
| TRIE BOR | | | | | | | | | | | | |
| URTI DIO | | | | | | | | | | | | II 0.3 |
| USNE ALP | | | | | | | III 2.5 | | II 0.3 | | | |
| USNE HIR | | | | | | | | | | | | |
| USNE SOR | | | | | | | | | | V 15.0 | | V 5.0 |
| USNE SUB | | V 15.0 | | | | | | | II 1.7 | | | |
| VACC MYR | | V 20.0 | V 17.5 | | | | | | | V 2.0 | | II 0.3 |
| VACC VIT | | | V 10.0 | | | | | | | | | |
| VALE DIO | | | | | | | | | | | | |
| VIBU EDU | | | | V 3.0 | III 0.8 | III 2.5 | V 10.0 | IV 11.7 | | | | |
| VICE AME | | | | V 1.0 | III 0.5 | V 1.0 | V 1.0 | II 0.3 | | | | II 0.3 |
| VICI AME | | | | V 1.0 | III 0.5 | III 0.5 | V 1.0 | V 1.0 | | | | |
| VIOL REN | | | III 0.5 | III 0.5 | III 0.5 | III 0.5 | | | | | | |
| VIOL RUG | | | III 0.5 | III 0.5 | | | | | | | | |
| XANT RAM | | | | | | III 2.5 | | | | | | |

MENSURATION SUMMARY

11:58:54 NOV 27, 1984

VOLUME SAMPLING REGION: 5

MERCHANTABILITY LIMITS:

STUMP HEIGHT (M): 0.30 TOP DIAMETER 1B (CM): 7.0

EAST BEAVER LAKE MENSURATION

PLOT : 1 SIZE (HA) : .01

| SPECIES | MEAN AGE YEARS | SAMPLE TREES | LIVE TREES (PER HA) | BA/HA (M ²) | MEAN DBH (CM) | MEAN CANOPY HEIGHT (M) | VOLUME TOTAL | M ³ /HA MERCH | MAI TOTAL | M ³ /HA MERCH | DEAD STEMS (PER HA) | TOT STEMS (PER HA) | MEAN HGT DOM+COD M@50 YRS (M) | S.I. |
|---------|----------------|--------------|---------------------|-------------------------|---------------|------------------------|--------------|--------------------------|-----------|--------------------------|---------------------|--------------------|-------------------------------|------|
| AW | 46.0 | 2 | 2100.0 | 24.2 | 11.4 | 15.2 | 170.64 | 91.42 | 0.80 | 91.42 | | 2100.0 | | 14.7 |
| PB | | | 900.0 | 6.3 | 9.4 | 12.9 | 36.63 | | | | | 900.0 | | |
| CONF | | | | | | | | | | | | | | |
| HDWD | 46.0 | 2 | 3000.0 | 30.5 | 10.8 | 14.5 | 207.27 | 91.42 | 0.80 | 91.42 | 500.0 | 3500.0 | | 14.7 |
| PLOT | 46.0 | 2 | 3000.0 | 30.5 | 10.8 | 14.5 | 207.27 | 91.42 | 0.80 | 91.42 | 500.0 | 3500.0 | | 14.7 |

PLOT : 3 SIZE (HA) : .01

| SPECIES | MEAN AGE YEARS | SAMPLE TREES | LIVE TREES (PER HA) | BA/HA (M ²) | MEAN DBH (CM) | MEAN CANOPY HEIGHT (M) | VOLUME TOTAL | M ³ /HA MERCH | MAI TOTAL | M ³ /HA MERCH | DEAD STEMS (PER HA) | TOT STEMS (PER HA) | MEAN HGT DOM+COD M@50 YRS (M) | S.I. |
|---------|----------------|--------------|---------------------|-------------------------|---------------|------------------------|--------------|--------------------------|-----------|--------------------------|---------------------|--------------------|-------------------------------|------|
| AW | 44.0 | 2 | 1400.0 | 18.6 | 12.7 | 13.9 | 118.90 | 82.17 | 2.70 | 82.17 | 1.87 | 1400.0 | 13.9 | 17.6 |
| PB | 69.0 | 1 | 700.0 | 4.3 | 8.6 | 10.5 | 21.43 | 6.26 | 0.31 | 6.26 | 0.09 | 700.0 | | 13.0 |
| CONF | | | | | | | | | | | | | | |
| HDWD | 52.3 | 3 | 2100.0 | 22.9 | 11.3 | 12.8 | 140.33 | 88.44 | 3.01 | 88.44 | 1.96 | 2500.0 | 13.9 | 16.1 |
| PLOT | 52.3 | 3 | 2100.0 | 22.9 | 11.3 | 12.8 | 140.33 | 88.44 | 3.01 | 88.44 | 1.96 | 2500.0 | 13.9 | 16.1 |

EAST BEAVER LAKE MENSURATION

PLOT : 2

SIZE (HA) : .04

| SPECIES | MEAN AGE YEARS | SAMPLE TREES | LIVE TREES (PER HA) | BA/HA (M2) | MEAN DBH (CM) | MEAN CANOPY HEIGHT (M) | VOLUME TOTAL | MAI M3/HA MERCH | DEAD STEMS (PER HA) | TOT STEMS (PER HA) | MEAN HGT S.I. DOM+COD M@50 YRS (M) |
|---------|-------------------|-----------------|------------------------|---------------|------------------|------------------------------|-----------------|--------------------|------------------------|-----------------------|---|
| SW | 37.0 | 2 | 350.0 | 2.5 | 9.3 | 8.1 | 9.13 | 0.91 | 0.25 | 0.02 | 350.0 9.5 19.7 |
| SB | 42.0 | 1 | 25.0 | 0.5 | 15.2 | 8.5 | 1.55 | 1.30 | 0.04 | 0.03 | 25.0 8.5 15.0 |
| PJ | 33.5 | 2 | 50.0 | 1.0 | 15.8 | 13.8 | 6.54 | 5.95 | 0.20 | 0.18 | 50.0 13.8 20.5 |
| AW | | | 25.0 | 0.2 | 8.9 | 10.0 | 0.70 | | | | 25.0 |
| PB | | | 125.0 | 3.2 | 17.2 | 13.0 | 19.08 | 16.75 | | | 125.0 |
| BW | | | 50.0 | 0.2 | 7.1 | 7.5 | 0.70 | | | | 50.0 |
| CONF | 36.6 | 5 | 425.0 | 3.9 | 10.4 | 8.8 | 17.22 | 8.15 | 0.48 | 0.23 | 425.0 11.0 19.1 |
| HOWD | | | 200.0 | 3.6 | 13.7 | 11.3 | 20.48 | 16.75 | | | 200.0 |
| PLOT | 36.6 | 5 | 625.0 | 7.5 | 11.5 | 9.6 | 37.70 | 24.90 | 0.48 | 0.23 | 625.0 11.0 19.1 |

PLOT : 10

SIZE (HA) : .04

| SPECIES | MEAN AGE YEARS | SAMPLE TREES | LIVE TREES (PER HA) | BA/HA (M2) | MEAN DBH (CM) | MEAN CANOPY HEIGHT (M) | VOLUME TOTAL | MAI M3/HA MERCH | DEAD STEMS (PER HA) | TOT STEMS (PER HA) | MEAN HGT S.I. DOM+COD M@50 YRS (M) |
|---------|-------------------|-----------------|------------------------|---------------|------------------|------------------------------|-----------------|--------------------|------------------------|-----------------------|---|
| SB | 66.5 | 2 | 350.0 | 5.7 | 13.6 | 9.1 | 24.96 | 19.26 | 0.38 | 0.29 | 350.0 12.5 13.3 |
| LT | 57.0 | 2 | 50.0 | 0.5 | 11.3 | 9.5 | 2.26 | 1.50 | 0.04 | 0.03 | 50.0 11.5 |
| CONF | 61.8 | 4 | 400.0 | 6.2 | 13.3 | 9.2 | 27.22 | 20.76 | 0.41 | 0.32 | 400.0 12.5 12.4 |
| HOWD | | | | | | | | | | | |
| PLOT | 61.8 | 4 | 400.0 | 6.2 | 13.3 | 9.2 | 27.22 | 20.76 | 0.41 | 0.32 | 400.0 12.5 12.4 |

EAST BEAVER LAKE MENSURATION

PLOT : 9 SIZE (HA) : .04

| SPECIES | MEAN AGE YEARS | AGE SAMPLE TREES (PER HA) | BA/HA (M2) | MEAN DBH (CM) | MEAN HEIGHT (M) | MEAN CANOPY VOLUME (M3/HA) | MAI M3/HA TOTAL | DEAD STEMS (PER HA) | TOT STEMS (PER HA) | MEAN HGT (M) | S. I. DOM+COD M@50 YRS |
|---------|----------------|---------------------------|------------|---------------|-----------------|----------------------------|-----------------|---------------------|--------------------|--------------|------------------------|
| SW | 90.0 | 2 | 21.7 | 33.9 | 24.3 | 209.70 | 2.33 | 2.20 | 225.0 | 28.0 | 20.4 |
| AW | 53.5 | 2 | 26.1 | 26.9 | 22.1 | 248.51 | 4.65 | 4.43 | 425.0 | 24.0 | 24.0 |
| CONF | 90.0 | 2 | 21.7 | 33.9 | 24.3 | 209.70 | 2.33 | 2.20 | 25.0 | 28.0 | 20.4 |
| HDWD | 53.5 | 2 | 26.1 | 26.9 | 22.1 | 248.51 | 4.65 | 4.43 | 425.0 | 24.0 | 24.0 |
| PLOT | 71.8 | 4 | 47.8 | 29.3 | 22.8 | 458.21 | 6.98 | 6.63 | 25.0 | 26.7 | 22.2 |

PLOT : 7 SIZE (HA) : .02

| SPECIES | MEAN AGE YEARS | AGE SAMPLE TREES (PER HA) | BA/HA (M2) | MEAN DBH (CM) | MEAN HEIGHT (M) | MEAN CANOPY VOLUME (M3/HA) | MAI M3/HA TOTAL | DEAD STEMS (PER HA) | TOT STEMS (PER HA) | MEAN HGT (M) | S. I. DOM+COD M@50 YRS |
|---------|----------------|---------------------------|------------|---------------|-----------------|----------------------------|-----------------|---------------------|--------------------|--------------|------------------------|
| AW | 57.0 | 2 | 15.0 | 15.0 | 14.4 | 111.90 | 1.96 | 1.64 | 750.0 | 23.6 | 23.5 |
| PB | 71.0 | 2 | 43.4 | 36.4 | 24.7 | 442.16 | 6.23 | 5.99 | 400.0 | 28.8 | 26.2 |
| CONF | 64.0 | 4 | 58.4 | 22.5 | 18.0 | 554.06 | 8.19 | 7.63 | 300.0 | 26.3 | 24.9 |
| HDWD | 64.0 | 4 | 58.4 | 22.5 | 18.0 | 554.06 | 8.19 | 7.63 | 300.0 | 26.3 | 24.9 |

EAST BEAVER LAKE MENSURATION

PLOT : 11 SIZE (HA) : .04

| SPECIES | MEAN AGE YEARS | SAMPLE TREES | LIVE TREES (PER HA) | BA/HA (M ²) | MEAN DBH (CM) | MEAN CANOPY HEIGHT (M) | VOLUME (M ³ /HA) | | MAI TOTAL | M ³ /HA MERCH | DEAD STEMS (PER HA) | TOT STEMS MEAN HGT S.I. | |
|---------|-------------------|-----------------|------------------------|----------------------------|------------------|------------------------------|-----------------------------|--------|--------------|-----------------------------|------------------------|-------------------------|------------------------------------|
| | | | | | | | TOTAL | MERCH | | | | (PER HA) | DOM+COD M ⁵⁰ YRS (M) |
| SW | 79.0 | 2 | 500.0 | 49.6 | 34.2 | 23.4 | 442.88 | 417.46 | 5.61 | 5.28 | 500.0 | 25.3 | 20.7 |
| SE | | | 25.0 | 0.7 | 18.9 | 18.0 | 5.29 | 4.84 | | | 25.0 | | |
| PB | | | 25.0 | 1.1 | 23.9 | 18.0 | 8.35 | 7.88 | | | 25.0 | | |
| CONF | 79.0 | 2 | 525.0 | 50.3 | 33.5 | 23.1 | 448.17 | 422.30 | 5.61 | 5.28 | 25.0 | 25.3 | 20.7 |
| HDWD | | | 25.0 | 1.1 | 23.9 | 18.0 | 8.35 | 7.88 | | | 25.0 | | |
| PLOT | 79.0 | 2 | 550.0 | 51.4 | 33.0 | 22.9 | 456.52 | 430.19 | 5.61 | 5.28 | 25.0 | 25.3 | 20.7 |

PLOT : 21 SIZE (HA) : .03

| SPECIES | MEAN AGE YEARS | SAMPLE TREES | LIVE TREES (PER HA) | BA/HA (M ²) | MEAN DBH (CM) | MEAN CANOPY HEIGHT (M) | VOLUME (M ³ /HA) | | MAI TOTAL | M ³ /HA MERCH | DEAD STEMS (PER HA) | TOT STEMS MEAN HGT S.I. | |
|---------|-------------------|-----------------|------------------------|----------------------------|------------------|------------------------------|-----------------------------|--------|--------------|-----------------------------|------------------------|-------------------------|------------------------------------|
| | | | | | | | TOTAL | MERCH | | | | (PER HA) | DOM+COD M ⁵⁰ YRS (M) |
| SW | 90.0 | 2 | 833.3 | 23.3 | 17.6 | 16.8 | 194.92 | 170.79 | 2.17 | 1.90 | 833.3 | 24.3 | 17.8 |
| AW | 82.5 | 2 | 266.7 | 14.9 | 26.4 | 24.3 | 149.89 | 143.46 | 1.82 | 1.74 | 266.7 | 24.5 | 20.3 |
| CONF | 90.0 | 2 | 833.3 | 23.3 | 17.6 | 16.8 | 194.92 | 170.79 | 2.17 | 1.90 | 166.7 | 1000.0 | 17.8 |
| HDWD | 82.5 | 2 | 266.7 | 14.9 | 26.4 | 24.3 | 149.89 | 143.46 | 1.82 | 1.74 | 266.7 | 24.5 | 20.3 |
| PLOT | 86.3 | 4 | 1100.0 | 38.2 | 19.7 | 18.6 | 344.82 | 314.25 | 3.98 | 3.64 | 166.7 | 1266.7 | 19.0 |

EAST BEAVER LAKE MENSURATION

PLOT : 15 SIZE (HA) : .04

| SPECIES | MEAN AGE YEARS | SAMPLE TREES | LIVE TREES (PER HA) | BA/HA (M ²) | MEAN DBH (CM) | MEAN CANOPY HEIGHT (M) | VOLUME TOTAL | M3/HA MERCH | MAI TOTAL | M3/HA MERCH | DEAD STEMS (PER HA) | TOT STEMS (PER HA) | DOM+COD M ² 50 YRS | S. I. |
|---------|-------------------|-----------------|------------------------|----------------------------|------------------|------------------------------|-----------------|----------------|--------------|----------------|------------------------|-----------------------|----------------------------------|-------|
| SW | 38.5 | 2 | 100.0 | 2.7 | 18.1 | 12.0 | 13.29 | 11.89 | 0.35 | 0.31 | | 100.0 | | 21.8 |
| PJ | | | 25.0 | 0.4 | 14.4 | 16.1 | 3.20 | 2.87 | | | | 25.0 | | |
| AW | 46.5 | 2 | 375.0 | 5.7 | 12.6 | 14.9 | 41.52 | 30.28 | 0.89 | 0.65 | | 375.0 | 18.1 | 20.7 |
| CONF | 38.5 | 2 | 125.0 | 3.1 | 17.3 | 12.8 | 16.49 | 14.76 | 0.35 | 0.31 | 50.0 | 175.0 | | 21.8 |
| HOWD | 46.5 | 2 | 375.0 | 5.7 | 12.6 | 14.9 | 41.52 | 30.28 | 0.89 | 0.65 | | 375.0 | 18.1 | 20.7 |
| PLOT | 42.5 | 4 | 500.0 | 8.8 | 13.8 | 14.4 | 58.01 | 45.04 | 1.24 | 0.96 | 50.0 | 550.0 | 18.1 | 21.2 |

| EAST BEAVER LAKE ASSOCIATION SUMMARY - P 2 PINE/BEARBERRY/LICHEN | | | | | | | | | | |
|---|--------|--------|--------|--------|-------|-------|---------------------------|-----|-----|-------------------------|
| VOLUME (M3/HA) | TOTAL | | | VOLUME | | | MERCHANTABLE GROSS VOLUME | | | SITE INDEX M @ 50YRS |
| | MEAN | MIN | MAX | MEAN | MIN | MAX | MEAN | MIN | MAX | |
| TOTAL | 37.70 | 37.70 | 37.70 | 24.90 | 24.90 | 24.90 | | | | |
| CONIFEROUS | 17.22 | 17.22 | 17.22 | 8.15 | 8.15 | 8.15 | | | | |
| DECIDUOUS | 20.48 | 20.48 | 20.48 | 16.75 | 16.75 | 16.75 | | | | |
| SPECIES VOLUME (M3/HA) | | | | | | | | | | |
| SW | 9.13 | 9.13 | 9.13 | 0.91 | 0.91 | 0.91 | | | | 20.0 |
| SB | 1.55 | 1.55 | 1.55 | 1.30 | 1.30 | 1.30 | | | | 15.0 |
| SE | | | | | | | | | | |
| PL | | | | | | | | | | |
| PJ | 6.54 | 6.54 | 6.54 | 5.95 | 5.95 | 5.95 | | | | 21.0 |
| FA | | | | | | | | | | |
| FB | | | | | | | | | | |
| LA | | | | | | | | | | |
| LT | | | | | | | | | | |
| FD | | | | | | | | | | |
| AW | 0.70 | 0.70 | 0.70 | | | | | | | |
| PB | 19.08 | 19.08 | 19.08 | 16.75 | 16.75 | 16.75 | | | | |
| BW | 0.70 | 0.70 | 0.70 | | | | | | | |
| LIVE STEMS/HA | | | | | | | | | | |
| CONIFEROUS | 425.00 | 425.00 | 425.00 | | | | | | | |
| DECIDUOUS | 200.00 | 200.00 | 200.00 | | | | | | | |
| TOTAL | 625.00 | 625.00 | 625.00 | | | | | | | |
| BASAL AREA (M2/HA) | | | | | | | | | | |
| CONIFEROUS | 3.90 | 3.90 | 3.90 | | | | | | | |
| DECIDUOUS | 3.60 | 3.60 | 3.60 | | | | | | | |
| TOTAL | 7.50 | 7.50 | 7.50 | | | | | | | |
| M.A.I. (M3/HA/YR) | 0.48 | 0.48 | 0.48 | 0.23 | 0.23 | 0.23 | | | | |
| STAND AGE (YEARS) | 36.6 | 36.6 | 36.6 | | | | | | | |
| CANOPY HEIGHT (M) | 9.6 | 9.6 | 9.6 | | | | | | | |
| HGT DOM-CODOM (M) | 11.0 | 11.0 | 11.0 | | | | | | | |
| MEAN DBH (CM) | 11.5 | 11.5 | 11.5 | | | | | | | |

EAST BEAVER LAKE

[illegible]

EAST BEAVER LAKE
ASSOCIATION SUMMARY - P 3 PINE/ALDER/BLUEBERRY

| VOLUME (M3/HA) | TOTAL GROSS VOLUME | | | MERCHANTABLE GROSS VOLUME | | | SITE INDEX M @ 50YRS |
|------------------------|--------------------|--------|--------|---------------------------|-------|-------|-------------------------|
| | MEAN | MIN | MAX | MEAN | MIN | MAX | |
| TOTAL | 58.01 | 58.01 | 58.01 | 45.04 | 45.04 | 45.04 | |
| CONIFEROUS | 16.49 | 16.49 | 16.49 | 14.76 | 14.76 | 14.76 | |
| DECIDUOUS | 41.52 | 41.52 | 41.52 | 30.28 | 30.28 | 30.28 | |
| SPECIES VOLUME (M3/HA) | | | | | | | |
| SW | 13.29 | 13.29 | 13.29 | 11.89 | 11.89 | 11.89 | 22.0 |
| SB | | | | | | | |
| SE | | | | | | | |
| PL | | | | | | | |
| PJ | 3.20 | 3.20 | 3.20 | 2.87 | 2.87 | 2.87 | |
| FA | | | | | | | |
| FB | | | | | | | |
| LA | | | | | | | |
| LT | | | | | | | |
| FD | | | | | | | |
| AW | 41.52 | 41.52 | 41.52 | 30.28 | 30.28 | 30.28 | 21.0 |
| PB | | | | | | | |
| BW | | | | | | | |
| LIVE STEMS/HA | | | | | | | |
| CONIFEROUS | 125.00 | 125.00 | 125.00 | | | | |
| DECIDUOUS | 375.00 | 375.00 | 375.00 | | | | |
| TOTAL | 500.00 | 500.00 | 500.00 | | | | |
| BASAL AREA (M2/HA) | | | | | | | |
| CONIFEROUS | 3.10 | 3.10 | 3.10 | | | | |
| DECIDUOUS | 5.70 | 5.70 | 5.70 | | | | |
| TOTAL | 8.80 | 8.80 | 8.80 | | | | |
| M.A.I. (M3/HA/YR) | 1.24 | 1.24 | 1.24 | 0.96 | 0.96 | 0.96 | |
| STAND AGE (YEARS) | 42.5 | 42.5 | 42.5 | | | | |
| CANOPY HEIGHT (M) | 14.4 | 14.4 | 14.4 | | | | |
| HGT DOM+CODOM (M) | 18.1 | 18.1 | 18.1 | | | | |
| MEAN DBH (CM) | 13.8 | 13.8 | 13.8 | | | | |

EAST BEAVER LAKE

[illegible]

EAST BEAVER LAKE
ASSOCIATION SUMMARY - A 1a ASPEN/ALDER/TWINFLOWER

| VOLUME (M3/HA) | TOTAL | | | GROSS VOLUME | | | MERCHANTABLE GROSS VOLUME | | | SITE INDEX M @ 50YRS |
|------------------------|---------|-----|---------|--------------|-----|-----|---------------------------|-----|-------|-------------------------|
| | MEAN | MIN | MAX | MEAN | MIN | MAX | MEAN | MIN | MAX | |
| TOTAL | 103.63 | | 207.27 | 146.56 | | | 45.71 | | 91.42 | 64.64 |
| CONIFEROUS | | | | | | | | | | |
| DECIDUOUS | 103.63 | | 207.27 | 146.56 | | | 45.71 | | 91.42 | 64.64 |
| SPECIES VOLUME (M3/HA) | | | | | | | | | | |
| SW | | | | | | | | | | |
| SB | | | | | | | | | | |
| SE | | | | | | | | | | |
| PL | | | | | | | | | | |
| PJ | | | | | | | | | | |
| FA | | | | | | | | | | |
| FB | | | | | | | | | | |
| LA | | | | | | | | | | |
| LT | | | | | | | | | | |
| FD | | | | | | | | | | |
| AW | 85.32 | | 170.64 | 120.66 | | | 45.71 | | 91.42 | 64.64 |
| PB | 18.32 | | 36.63 | 25.90 | | | | | | 15.0 |
| BW | | | | | | | | | | |
| LIVE STEMS/HA | | | | | | | | | | |
| CONIFEROUS | | | | | | | | | | |
| DECIDUOUS | 1500.00 | | 3000.00 | 2121.32 | | | | | | |
| TOTAL | 1500.00 | | 3000.00 | 2121.32 | | | | | | |
| BASAL AREA (M2/HA) | | | | | | | | | | |
| CONIFEROUS | | | | | | | | | | |
| DECIDUOUS | 15.25 | | 30.50 | 21.57 | | | | | | |
| TOTAL | 15.25 | | 30.50 | 21.57 | | | | | | |
| M.A.I. (M3/HA/YR) | 0.40 | | 0.80 | 0.57 | | | | | | |
| STAND AGE (YEARS) | 23.0 | | 46.0 | 32.5 | | | | | | |
| CANOPY HEIGHT (M) | 7.3 | | 14.5 | 10.3 | | | | | | |
| HGT DOM+CODOM (M) | | | | | | | | | | |
| MEAN DBH (CM) | 5.4 | | 10.8 | 7.6 | | | | | | |

EAST BEAVER LAKE

[illegible]

EAST BEAVER LAKE
ASSOCIATION SUMMARY - A 1B ASPEN/WILLOW/SARSAPARILLA

| VOLUME (M3/HA) | TOTAL GROSS VOLUME | | | MERCHANTABLE GROSS VOLUME | | | SITE INDEX M @ 50YRS |
|------------------------|--------------------|---------|---------|---------------------------|-------|-------|-------------------------|
| | MEAN | MIN | MAX | MEAN | MIN | MAX | |
| TOTAL | 140.33 | 140.33 | 140.33 | 88.44 | 88.44 | 88.44 | |
| CONIFEROUS | | | | | | | |
| DECIDUOUS | 140.33 | 140.33 | 140.33 | 88.44 | 88.44 | 88.44 | |
| SPECIES VOLUME (M3/HA) | | | | | | | |
| SW | | | | | | | |
| SB | | | | | | | |
| SE | | | | | | | |
| PL | | | | | | | |
| PJ | | | | | | | |
| FA | | | | | | | |
| FB | | | | | | | |
| LA | | | | | | | |
| LT | | | | | | | |
| FD | | | | | | | |
| AW | 118.90 | 118.90 | 118.90 | 82.17 | 82.17 | 82.17 | 18.0 |
| PB | 21.43 | 21.43 | 21.43 | 6.26 | 6.26 | 6.26 | 13.0 |
| BW | | | | | | | |
| LIVE STEMS/HA | | | | | | | |
| CONIFEROUS | | | | | | | |
| DECIDUOUS | 2100.00 | 2100.00 | 2100.00 | | | | |
| TOTAL | 2100.00 | 2100.00 | 2100.00 | | | | |
| BASAL AREA (M2/HA) | | | | | | | |
| CONIFEROUS | | | | | | | |
| DECIDUOUS | 22.90 | 22.90 | 22.90 | | | | |
| TOTAL | 22.90 | 22.90 | 22.90 | | | | |
| M.A.I. (M3/HA/YR) | 3.01 | 3.01 | 3.01 | 1.96 | 1.96 | 1.96 | |
| STAND AGE (YEARS) | 52.3 | 52.3 | 52.3 | | | | |
| CANOPY HEIGHT (M) | 12.8 | 12.8 | 12.8 | | | | |
| HGT DOM+CODOM (M) | 13.9 | 13.9 | 13.9 | | | | |
| MEAN DBH (CM) | 11.3 | 11.3 | 11.3 | | | | |

EAST BEAVER LAKE

[illegible]

EAST BEAVER LAKE
ASSOCIATION SUMMARY - A 2 ASPEN-POPLAR/CRANBERRY

| VOLUME (M3/HA) | TOTAL GROSS VOLUME | | | MERCHANTABLE GROSS VOLUME | | | SITE INDEX M @ 50YRS |
|------------------------|--------------------|---------|---------|---------------------------|--------|--------|-------------------------|
| | MEAN | MIN | MAX | MEAN | MIN | MAX | |
| TOTAL | 554.06 | 554.06 | 554.06 | 518.96 | 518.96 | 518.96 | |
| CONIFEROUS | | | | | | | |
| DECIDUOUS | 554.06 | 554.06 | 554.06 | 518.96 | 518.96 | 518.96 | |
| SPECIES VOLUME (M3/HA) | | | | | | | |
| SW | | | | | | | |
| SB | | | | | | | |
| SE | | | | | | | |
| PL | | | | | | | |
| PJ | | | | | | | |
| FA | | | | | | | |
| FB | | | | | | | |
| LA | | | | | | | |
| LT | | | | | | | |
| FD | | | | | | | |
| AW | 111.90 | 111.90 | 111.90 | 93.49 | 93.49 | 93.49 | 24.0 |
| PB | 442.16 | 442.16 | 442.16 | 425.48 | 425.48 | 425.48 | 26.0 |
| BW | | | | | | | |
| LIVE STEMS/HA | | | | | | | |
| CONIFEROUS | | | | | | | |
| DECIDUOUS | 1150.00 | 1150.00 | 1150.00 | | | | |
| TOTAL | 1150.00 | 1150.00 | 1150.00 | | | | |
| BASAL AREA (M2/HA) | | | | | | | |
| CONIFEROUS | | | | | | | |
| DECIDUOUS | 58.40 | 58.40 | 58.40 | | | | |
| TOTAL | 58.40 | 58.40 | 58.40 | | | | |
| M.A.I. (M3/HA/YR) | 8.19 | 8.19 | 8.19 | 7.63 | 7.63 | 7.63 | |
| STAND AGE (YEARS) | 64.0 | 64.0 | 64.0 | | | | |
| CANOPY HEIGHT (M) | 18.0 | 18.0 | 18.0 | | | | |
| HGT DOM+CODOM (M) | 26.3 | 26.3 | 26.3 | | | | |
| MEAN DBH (CM) | 22.5 | 22.5 | 22.5 | | | | |

EAST BEAVER LAKE

[illegible]

EAST BEAVER LAKE
ASSOCIATION SUMMARY - SW 1 WHITE SPRUCE-ASPEN/CRANBERRY/SARSAPARILLA

| VOLUME (M3/HA) | TOTAL | | | GROSS VOLUME | | | MERCHANTABLE GROSS VOLUME | | | SITE INDEX M @ 50YRS |
|------------------------|--------|--------|---------|--------------|-----|-----|---------------------------|--------|--------|-------------------------|
| | MEAN | MIN | MAX | MEAN | MIN | MAX | MEAN | MIN | MAX | |
| TOTAL | 401.51 | 344.82 | 458.21 | 80.18 | | | 374.72 | 314.25 | 435.20 | 85.52 |
| CONIFEROUS | 202.31 | 194.92 | 209.70 | 10.46 | | | 184.40 | 170.79 | 198.02 | 19.26 |
| DECIDUOUS | 199.20 | 149.89 | 248.51 | 69.74 | | | 190.32 | 143.46 | 237.18 | 66.27 |
| SPECIES VOLUME (M3/HA) | | | | | | | | | | |
| SW | 202.31 | 194.92 | 209.70 | 10.46 | | | 184.40 | 170.79 | 198.02 | 19.26 |
| SB | | | | | | | | | | |
| SE | | | | | | | | | | |
| PL | | | | | | | | | | |
| PJ | | | | | | | | | | |
| FA | | | | | | | | | | |
| FB | | | | | | | | | | |
| LA | | | | | | | | | | |
| LT | | | | | | | | | | |
| FD | | | | | | | | | | |
| AW | 199.20 | 149.89 | 248.51 | 69.74 | | | 190.32 | 143.46 | 237.18 | 66.27 |
| PB | | | | | | | | | | 22.0 |
| BW | | | | | | | | | | |
| LIVE STEMS/HA | | | | | | | | | | |
| CONIFEROUS | 529.15 | 225.00 | 833.30 | 430.13 | | | | | | |
| DECIDUOUS | 345.85 | 266.70 | 425.00 | 111.94 | | | | | | |
| TOTAL | 875.00 | 650.00 | 1100.00 | 318.20 | | | | | | |
| BASAL AREA (M2/HA) | | | | | | | | | | |
| CONIFEROUS | 22.50 | 21.70 | 23.30 | 1.13 | | | | | | |
| DECIDUOUS | 20.50 | 14.90 | 26.10 | 7.92 | | | | | | |
| TOTAL | 43.00 | 38.20 | 47.80 | 6.79 | | | | | | |
| M.A.I. (M3/HA/YR) | 5.48 | 3.98 | 6.98 | 2.12 | | | 5.14 | 3.64 | 6.63 | 2.11 |
| STAND AGE (YEARS) | 79.1 | 71.8 | 86.3 | 10.3 | | | | | | |
| CANOPY HEIGHT (M) | 20.7 | 18.6 | 22.8 | 3.0 | | | | | | |
| HGT DOM-CODOM (M) | 25.5 | 24.4 | 26.7 | 1.6 | | | | | | |
| MEAN DBH (CM) | 24.5 | 19.7 | 29.3 | 6.8 | | | | | | |

EAST BEAVER LAKE

[illegible]

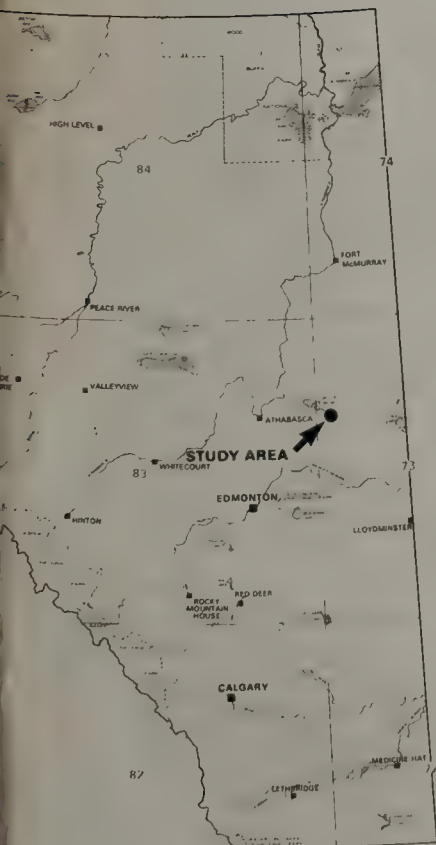
EAST BEAVER LAKE
ASSOCIATION SUMMARY - L 1 TAMARACK-BLACK SPRUCE/SEDGE/MOSS

| VOLUME (M3/HA) | TOTAL | | | GROSS VOLUME | | | MERCHANTABLE GROSS VOLUME | | | SITE INDEX M @ 50YRS |
|------------------------|--------|--------|--------|--------------|-------|-------|---------------------------|-------|-------|-------------------------|
| | MEAN | MIN | MAX | MEAN | MIN | MAX | MEAN | MIN | MAX | |
| TOTAL | 27.22 | 27.22 | 27.22 | 27.22 | 27.22 | 27.22 | 20.76 | 20.76 | 20.76 | |
| CONIFEROUS | 27.22 | 27.22 | 27.22 | | | | 20.76 | 20.76 | 20.76 | |
| DECIDUOUS | | | | | | | | | | |
| SPECIES VOLUME (M3/HA) | | | | | | | | | | |
| SW | 24.96 | 24.96 | 24.96 | | | | 19.26 | 19.26 | 19.26 | 13.0 |
| SB | | | | | | | | | | |
| SE | | | | | | | | | | |
| PL | | | | | | | | | | |
| PJ | | | | | | | | | | |
| FA | | | | | | | | | | |
| FB | | | | | | | | | | |
| LA | | | | | | | | | | |
| LT | 2.26 | 2.26 | 2.26 | | | | 1.50 | 1.50 | 1.50 | 12.0 |
| FD | | | | | | | | | | |
| AW | | | | | | | | | | |
| PB | | | | | | | | | | |
| BW | | | | | | | | | | |
| LIVE STEMS/HA | | | | | | | | | | |
| CONIFEROUS | 400.00 | 400.00 | 400.00 | | | | | | | |
| DECIDUOUS | 400.00 | 400.00 | 400.00 | | | | | | | |
| TOTAL | | | | | | | | | | |
| BASAL AREA (M2/HA) | | | | | | | | | | |
| CONIFEROUS | 6.20 | 6.20 | 6.20 | | | | | | | |
| DECIDUOUS | 6.20 | 6.20 | 6.20 | | | | | | | |
| TOTAL | 0.41 | 0.41 | 0.41 | | | | 0.32 | 0.32 | 0.32 | |
| M.A.I. (M3/HA/YR) | | | | | | | | | | |
| STAND AGE (YEARS) | 61.8 | 61.8 | 61.8 | | | | | | | |
| CANOPY HEIGHT (M) | 9.2 | 9.2 | 9.2 | | | | | | | |
| HGT DOM+CODOM (M) | 12.5 | 12.5 | 12.5 | | | | | | | |
| MEAN DBH (CM) | 13.3 | 13.3 | 13.3 | | | | | | | |

EAST BEAVER LAKE STUDY AREA

FORAGE INVENTORY

Scale 1:15 000



available from:

Alberta Energy and Natural Resources,
Alberta Map & Photo Distribution Centre,
2nd Floor, North Tower, Petroleum Plaza,
9945-108 Street,
Edmonton, Alberta,
T5K 2G6

Interpreted by: Jill Veltman

RESOURCE INVENTORY SECTION
RESOURCE INVENTORY AND
APPRAISAL

Alberta

ENERGY AND NATURAL RESOURCES
Resource Evaluation and Planning Division



Tp. 66 R.12 W.4 Mer.



EAST BEAVER LAKE STUDY AREA

FORAGE INVENTORY

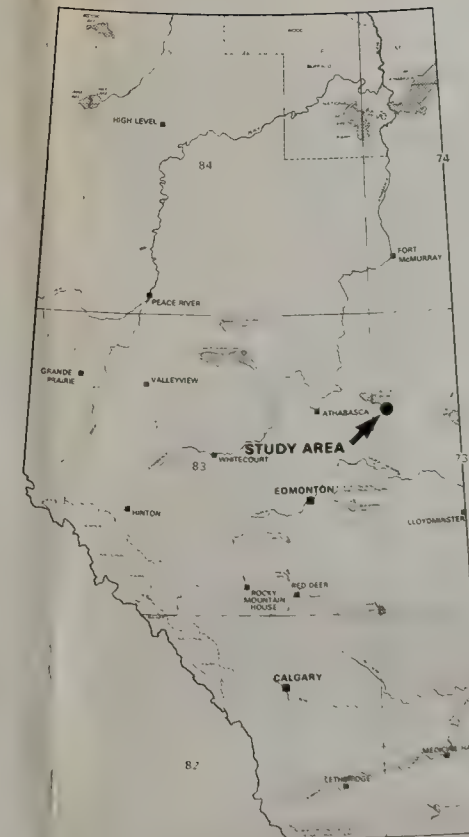
Scale 1:15 000

available from:

Alberta Energy and Natural Resources,
Alberta Map & Photo Distribution Centre
2nd Floor, North Tower, Petroleum Plaza
9945-108 Street,
Edmonton, Alberta,
T5K 2G6

Interpreted by: Jill Veltman

RESOURCE INVENTORY SECTION
RESOURCE INVENTORY AND
APPRAISAL



Alberta

ENERGY AND NATURAL RESOURCES
Resource Evaluation and Planning Division

LEGEND

ECOREGION

FORAGE TYPE

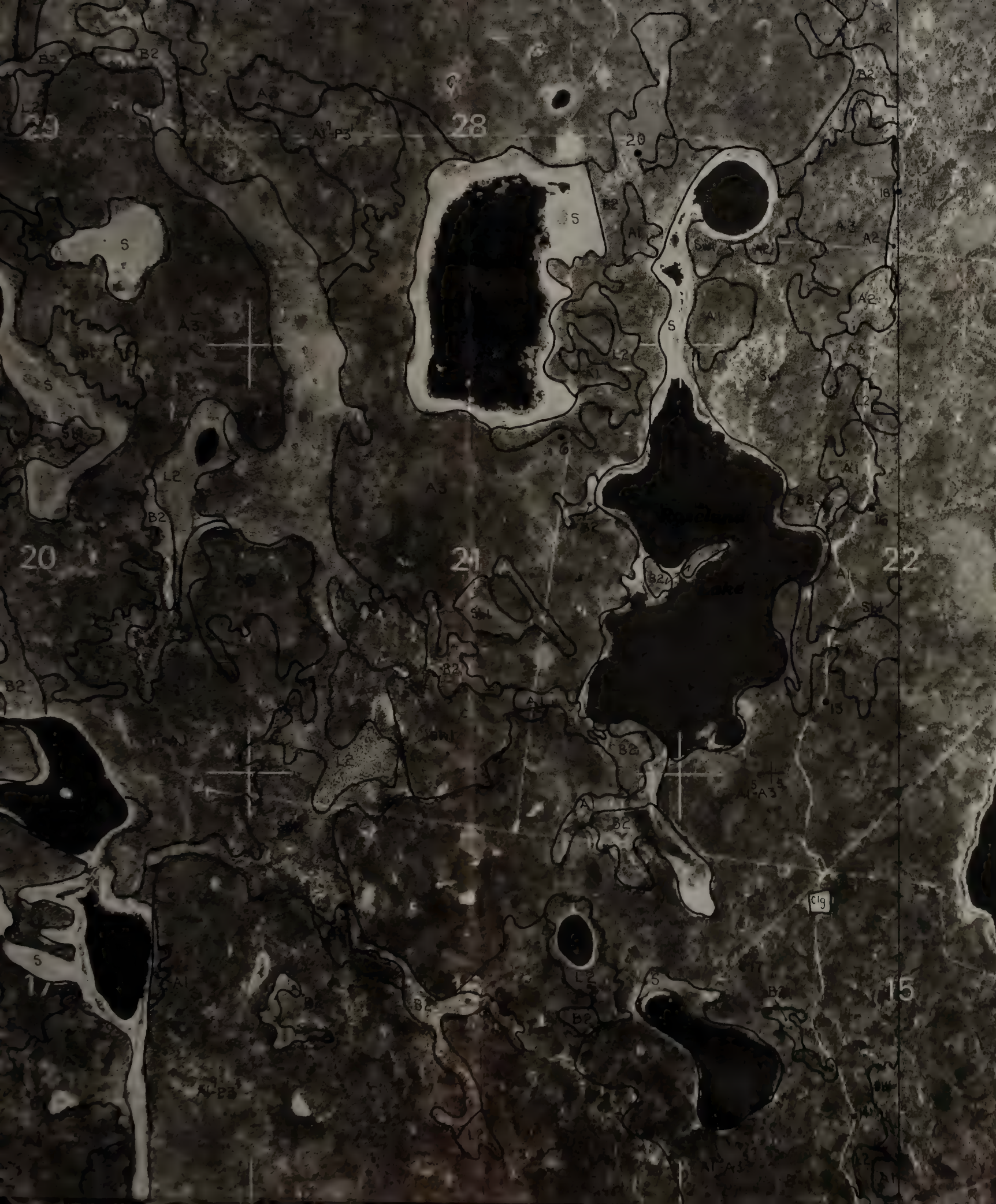
CHARACTERISTIC VEGETATION

8

P

Photo: Resource Evaluation and Planning Division

Old Canoe Island



Alberta

ENERGY AND NATURAL RESOURCES
Resource Evaluation and Planning Division

LEGEND

| ECOREGION | FORAGE TYPE | CHARACTERISTIC VEGETATION |
|-----------|-----------------|---|
| 8 | P ₂ | Pine/Bearberry/Feathermoss |
| | P ₃ | Pine/Alder/Blueberry |
| | A ₁ | Aspen/Alder/Twinflower (a) |
| | | Aspen/Willow/Sarsaparilla (b) |
| | A ₂ | Aspen-Poplar/Cranberry |
| | A ₃ | Aspen/Cranberry/Sarsaparilla |
| | Sw ₁ | White Spruce-Aspen/Cranberry/Sarsaparilla |
| | Sb ₁ | Black Spruce/Labrador Tea/Moss |
| | L ₁ | Tamarack-Black Spruce/Sedge/Moss |
| | L ₂ | Tamarack/Birch/Sedge/Moss |
| | B ₂ | Willow/Sedge |
| | S | Shoreline and Pond |

EXAMPLE OF MAP SYMBOL

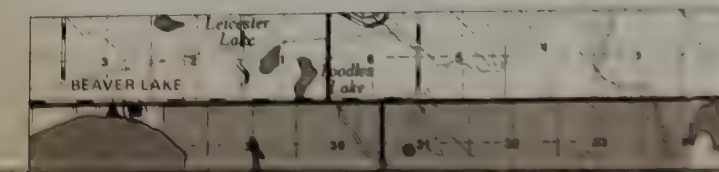
A₃⁵ - A₁⁵

Represents an area in Ecoregion 8, with 50% Forage Type A₃ and 50% of Forage Type A₁

EAST BEAVER LAKE STUDY AREA

R.13

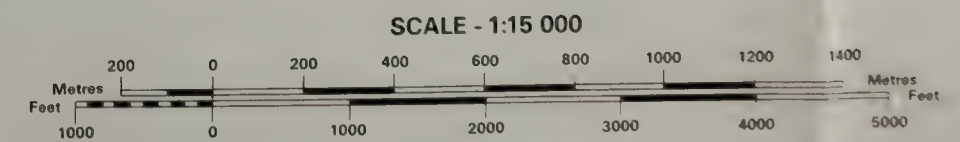
R.12 111 45





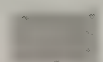
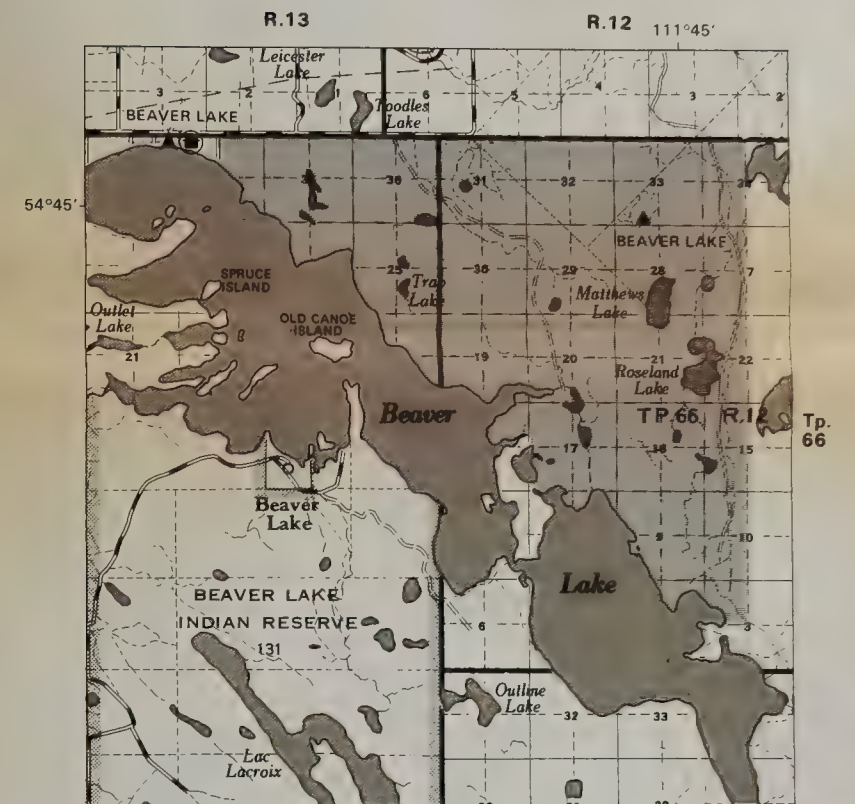
Tp. 66 R.13 W.4 Mer.

R.12





EAST BEAVER LAKE STUDY AREA



STUDY AREA

Note: Rectified Photo Enlargement Base. Township Corners Approximate



R.13 R.12

34

5

36

27

26

BEAVER



LEGEND

| Symbol | Class | Description |
|--------|------------------|--|
| A | Anthropogenic | Man-made or man-modified materials, including those associated with mineral exploration and waste disposal |
| C | Colluvial | Massive to moderately well stratified, non-sorted to poorly sorted sediments with any range of particle sizes from clay to boulders and blocks that have reached their present position by direct, gravity-induced movement |
| E | Eolian | Sediment generally consisting of medium to fine sand and coarse silt particle sizes that is well-sorted, poorly compacted, and may show internal structures such as cross bedding or ripple laminae, or may be massive. Individual grains may be rounded and show signs of frosting. These materials have been transported and deposited by wind action |
| F | Fluvial | Sediment generally consisting of gravel and sand with some fractions of silt and clay. The gravels are typically rounded and contain interstitial sand. Fluvial sediments are commonly moderately to well-sorted and display stratification, although massive non-sorted fluvial gravels do occur. These materials have been transported and deposited by streams and rivers |
| L | Lacustrine | Sediments generally consisting of either stratified fine sand, silt and clay deposited on the lake bed or moderately well-sorted and stratified sand and coarser materials that are beach and other near-shore sediments transported and deposited by wave action |
| M | Morainal | Sediment generally consisting of well-compacted material that is non-stratified and contains a heterogeneous mixture of particle sizes, often in a mixture of sand, silt and clay that have been transported beneath, beside, within and in front of a glacier and not modified by an intermediate agent |
| U | Undifferentiated | A layered sequence of more than three types of genetic material outcropping on a steep, erosional (scarp) slope |
| T | Tephra | Unconsolidated pyroclastic sediments of volcanic origin |
| P | Saprolite | Rock containing a high proportion of residual silts and clays formed by alteration, chiefly by chemical weathering |
| R | Rock | Consolidated component (bedrock) comprised of materials that are tightly packed or indurated. This includes igneous, metamorphic, sedimentary and consolidated volcanic rocks (bedrock) |
| I | Ice | The ice component includes areas of snow and ice where evidence of active glacier movement is present within the boundary of the defined unit area. This movement will be indicated by features such as crasseaux, supraglacial moraines, icefalls and ogives |
| GF | Glaciofluvial | Stratified drift (outwash) transported and deposited by glacial meltwaters that flowed upon, within, under or beyond the glacier |
| GL | Glaciolacustrine | Stratified sediments with generally alternating |

| Symbol | Class | Description |
|--------|--------------|---|
| a | Apron | A relatively gentle slope at the foot of a steeper slope, and formed by materials from the steeper upper slope |
| b | Blanket | A mantle of unconsolidated materials thick enough to mask minor irregularities in the underlying unit but which still conforms to the general underlying topography |
| d | Delta | The deposit of clay, silt, sand or gravel made by a stream where it flows into a body of standing water |
| f | Fan | A fan shaped form that can be likened to the segment of a cone, and possessing a perceptible gradient from the apex to the toe |
| h | Hummocky | A very complex sequence of slopes extending from somewhat rounded depressions or kettles of various sizes to irregular to conical knolls or knobs. There is a general lack of concordance between knolls or depressions |
| i | Inclined | A sloping, unidirectional surface with a generally constant slope not broken by marked irregularities |
| l | Level | A flat or very gently sloping, unidirectional surface with a generally constant slope not broken by marked elevations and depressions |
| p | Pitted | A relatively flat area having prominent depressions or pits |
| r | Ridged | A long, narrow elevation of the surface usually sharp crested with steep sides. The ridges may be parallel, subparallel or intersecting |
| m | Rolling | A very regular sequence of moderate slopes extending from rounded, sometimes confined concave depressions to broad, rounded convexities producing a wave like pattern of moderate relief. Slope length often is 1.6 km or greater and gradients greater than 5% |
| s | Steep | Erosional slopes, greater than 70%, on both consolidated and unconsolidated materials |
| k | Subdued | A group of linear and non-linear forms with slopes ranging up to 20% with local relief greater than 1 meter. Used where landforms which would otherwise be termed undulating, rolling, hummocky occur with low relief |
| t | Terraced | Scarp face and the horizontal or gently inclined surface (tread) above it |
| u | Undulating | A very regular sequence of gentle slopes that extend from rounded, sometimes confined concavities to broad, rounded convexities producing a wave like pattern of local relief. Slope length is generally less than 0.8 km and the dominant slope gradient is from 2 to 5% |
| v | Veneer | Unconsolidated materials too thin to mask the minor irregularities of the underlying unit surface. A veneer ranges from 10 cm to 1 metre in thickness |
| o | Floodplain | Deposits of alluvium as a veneer or blanket over a bedrock or gravel floor which has been cut and or deposited by the lateral action of a river |
| e | Depressional | A low place of any size on a plain surface is a hollow completely surrounded by higher ground and having no natural outlet for surface |

| | | |
|--------------------------|---------|-----------------------------------|
| DYB | | ORTHOIC DYSTRIC BRUNISOLS |
| | O DYB | Orthic Dystric Brunisol |
| | E DYB | Eluviated Dystric Brunisol |
| | DU DYB | Duric Dystric Brunisol |
| | GL DYB | Gleyed Dystric Brunisol |
| | GLE DYB | Gleyed Eluviated Dystric Brunisol |
| Chernozemic Order | | |
| B | | BROWN CHERNOZEMS |
| | O B | Orthic Brown |
| | R B | Rego Brown |
| | CA B | Calcareous Brown |
| | E B | Eluviated Brown |
| | SZ B | Solonchetic Brown |
| | GL B | Gleyed Brown |
| | GLR B | Gleyed Rego Brown |
| | GLCA B | Gleyed Calcareous Brown |
| | GLE B | Gleyed Eluviated Brown |
| | GLSZ B | Gleyed Solonchetic Brown |
| DB | | DARK BROWN CHERNOZEMS |
| | O DB | Orthic Dark Brown |
| | R DB | Rego Dark Brown |
| | CA DB | Calcareous Dark Brown |
| | E DB | Eluviated Dark Brown |
| | SZ DB | Solonchetic Dark Brown |
| | GL DB | Gleyed Dark Brown |
| | GLCA DB | Gleyed Calcareous Dark Brown |
| | GLE DB | Gleyed Eluviated Dark Brown |
| | GLSZ DB | Gleyed Solonchetic Dark Brown |
| BL | | BLACK CHERNOZEMS |
| | O BL | Orthic Black |
| | R BL | Rego Black |
| | CA BL | Calcareous Black |
| | E BL | Eluviated Black |
| | SZ BL | Solonchetic Black |
| | GL BL | Gleyed Black |
| | GLR BL | Gleyed Rego Black |
| | GLCA BL | Gleyed Calcareous Black |
| | GLE BL | Gleyed Eluviated Black |
| | GLSZ BL | Gleyed Solonchetic Black |
| DG | | DARK GREY CHERNOZEMS |
| | O DG | Orthic Dark Grey |
| | R DG | Rego Dark Grey |
| | CA DG | Calcareous Dark Grey |
| | SZ DG | Solonchetic Dark Grey |
| | GL DG | Gleyed Dark Grey |
| | GLR DG | Gleyed Rego Dark Grey |
| | GLCA DG | Gleyed Calcareous Dark Grey |
| | GLSZ DG | Gleyed Solonchetic Dark Grey |

Old Canoe Island

24

23

2

LAKE

18

13

14

1

| | |
|-----|--|
| Dim | |
| TM | |
| 6 | |





| | | |
|----|------------------|---|
| GF | Glaciofluvial | Stratified drift (outwash) transported and deposited by glacial meltwaters that flowed upon, within, under or beyond the glacier |
| GL | Glaciolacustrine | Stratified sediments with generally alternating coarse and fine grained laminae (layers) deposited in glacial lakes. Deposits also include ice rafted material and those laid down in deltaic and littoral (beach or shore region) environments |
| FE | Fluvioeolian | Sediments that have been deposited or reworked by fluvial and eolian processes which may or may not have been active at the same time. The deposits cannot be discreetly separated as fluvial or eolian |
| LT | Lacustro-moraine | Morainal deposits that may have been directly influenced by lacustrine processes. These deposits generally result from a repeated advance and retreat of a glacier terminus in a lacustrine environment |
| FL | Fluviolacustrine | Lacustrine deposits that have been partially reworked by fluvial processes |

| Organic Components | | |
|--------------------|--------------------------|---|
| B | Bog | Sphagnum or forest peat materials formed under an ombrotrophic environment due to the slightly elevated nature of the bog tending to be disassociated from nutrient-rich ground water or surrounding mineral soils |
| N | Fen | Sedge peat materials derived primarily from sedges with inclusions of partially decayed stems of shrubs formed in a eutrophic environment due to the close association of the material with mineral rich waters |
| S | Swamp | A peat covered or peat filled area with the water table at or above the peat surface. The dominant peat materials are shallow to deep mesic to humic forest and fen peat formed in a eutrophic environment resulting from strong water movement from the margins or other mineral sources |
| H | Marsh | Deposits comprised of mineral or organic material with a high mineral content, but with little peat accumulation |
| O | Undifferentiated Organic | Deposits with any of the criteria for bog, fen, swamp or marsh which have not been differentiated |

SOIL DRAINAGE

| Symbol | Class | Description |
|--------|-------------------------|---|
| 1 | Rapidly drained | The soil moisture content seldom exceeds field capacity in any horizon except immediately after water additions |
| 2 | Well drained | The soil moisture content does not normally exceed field capacity in any horizon (except possibly the C) for a significant part of the year |
| 3 | Moderately well-drained | The soil moisture in excess of field capacity remains for a small but significant part of the year |
| 4 | Imperfectly drained | The soil moisture in excess of field capacity remains in subsurface horizons for moderately long periods during the year |
| 5 | Poorly drained | The soil moisture in excess of field capacity remains in all horizons for a large part of the year |
| 6 | Very poorly drained | Free water remains at or within 30 cm of the surface most of the year |

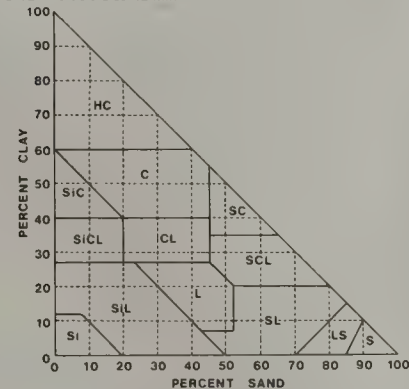
ON-SITE GRAPHICS

| | | | |
|-------------------------------------|--|--|--|
| Drumlin/drumlinoid ridge | | Failing (arrow indicates direction of failure) | |
| Fluting | | Piping | |
| Crag and tail | | Gullied | |
| Glacial Striae, ice direction known | | Erratic | |

| | | |
|---|--------------|---|
| e | Depressional | A low place of any size on a plain surface or a hollow completely surrounded by higher ground and having no natural outlet for surface drainage |
|---|--------------|---|

| Organic Components | | |
|--------------------|------------|--|
| b | Blanket | A mantle of organic materials thick enough to mask minor irregularities in the underlying unit, but which still conforms to the general underlying topography |
| o | Bowl | A bog or fen occupying concave shaped depressions |
| d | Domed | A bog or fen with an elevated, convex, central area much higher than the margin. Domes may be abrupt (with or without a frozen core) or gently sloping or with a stepped surface |
| f | Floating | A level or flat organic surface associated with very high water tables but without surface water |
| h | Horizontal | A flat, unidirectional peat surface not broken by marked elevations and depressions |
| p | Plateau | A bog with an elevated, flat, central area only slightly higher than the margin |
| r | Ribbed | A pattern of parallel or reticulate low ridges associated with fens |
| s | Sloping | A unidirectional peat surface with a generally constant slope not broken by marked irregularities |
| v | Veneer | A mantle of organic materials too thin to mask the minor irregularities of the underlying unit surface. A veneer ranges from 10 cm to 1 metre in thickness |

TEXTURE - Particle Size < 2 mm



Textural Classes: Percentages of clay (C) and sand (S) in the main textural classes, the remainder of each class is silt (Si).

(L-Loam)

Particle Size > 2 mm

| Symbol | Class | Sizes |
|--------|----------|-------------------------------|
| a | Blocky | angular particles > 256 mm |
| b | Bouldery | rounded particles > 256 mm |
| k | Cobbly | rounded particles 64-256 mm |
| g | Gravelly | rounded particles 2-64 mm |
| r | Rubby | angular particles 2 to 256 mm |

Organic Component

| Symbol | Class |
|--------|------------------|
| f | Fibric |
| m | Mesic |
| h | Humic |
| w | Woody |
| o | Undifferentiated |

Note: Where matrix of deposit consists of particles both < 2.0 mm and > 2.0 mm, the following guideline is applied:

| | | |
|----------|------|--|
| Examples | r | > 50% Rubby matrix |
| | rSiL | Rubby Silt Loam where Rubble is 25-50% of matrix |
| | SiL | Silt Loam > 75% of matrix |

MODIFIERS (EROSIONAL and DEPOSITION)

| | | |
|---|------------|---|
| A | Avalanched | Slopes modified by frequent avalanche activity. An avalanche is defined as a large mass of snow, ice, soil or rock or mixtures of these |
|---|------------|---|

| | |
|---------|-----------------------------|
| GL DG | Gleyed Dark Gray |
| GLR DG | Gleyed Rego Dark Gray |
| GLCA DG | Gleyed Calcareous Dark Gray |
| GLSZ DG | Gleyed Solonchalc Dark Gray |

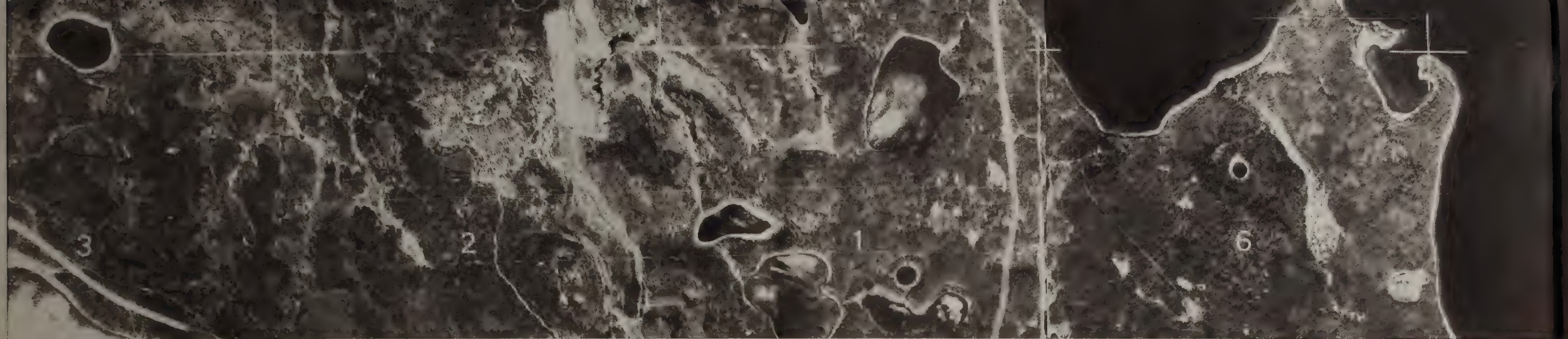
| Cryosolic Order | |
|-----------------|-------------------------------|
| TC | TURBIC CRYOSOLS |
| O TC | Orthic Turbic Cryosol |
| BR TC | Brunisolic Turbic Cryosol |
| R TC | Regosolic Turbic Cryosol |
| GL TC | Gleysolic Turbic Cryosol |
| SC | STATIC CRYOSOLS |
| O SC | Orthic Static Cryosol |
| BR SC | Brunisolic Static Cryosol |
| R SC | Regosolic Static Cryosol |
| GL SC | Gleysolic Static Cryosol |
| OC | ORGANIC CRYOSOLS |
| FI OC | Fibric Organic Cryosol |
| ME OC | Mesic Organic Cryosol |
| HU OC | Humic Organic Cryosol |
| TF OC | Terric Fibric Organic Cryosol |
| TME OC | Terric Mesic Organic Cryosol |
| THU OC | Terric Humic Organic Cryosol |

| Gleysolic Order | |
|-----------------|----------------------|
| HG | HUMIC GLEYSOLS |
| O HG | Orthic Humic Gleysol |
| R HG | Rego Humic Gleysol |
| FE HG | Fera Humic Gleysol |
| G | GLEYSOLS |
| O G | Orthic Gleysol |
| R G | Rego Gleysol |
| FE G | Fera Gleysol |
| LG | LUVIC GLEYSOLS |
| O LG | Orthic Luvic Gleysol |
| HU LG | Humic Luvic Gleysol |
| FE LG | Fera Luvic Gleysol |
| FR LG | Fragic Luvic Gleysol |

| Luvisolic Order | |
|-----------------|--------------------------------|
| GL | GRAY LUVISOLS |
| O GL | Orthic Gray Luvisol |
| D GL | Dark Gray Luvisol |
| BR GL | Brunisolic Gray Luvisol |
| PZ GL | Podzolic Gray Luvisol |
| SZ GL | Solonchalc Gray Luvisol |
| FR GL | Fragic Gray Luvisol |
| GL GL | Gleyed Gray Luvisol |
| GLD GL | Gleyed Dark Gray Luvisol |
| GLBR GL | Gleyed Brunisolic Gray Luvisol |
| GLPZ GL | Gleyed Podzolic Gray Luvisol |
| GLSZ GL | Gleyed Solonchalc Gray Luvisol |
| GLFR GL | Gleyed Fragic Gray Luvisol |

Organic Order

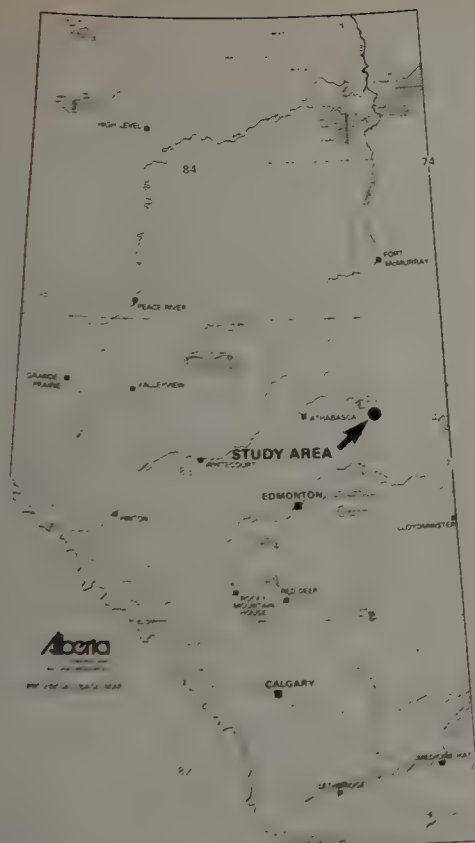
| | |
|-------|--------------------------|
| O | ORGANIC Undifferentiated |
| F | FIBRISOLS |
| TY F | Typic Fibrisol |
| ME F | Mesic Fibrisol |
| HU F | Humic Fibrisol |
| LM F | Limnic Fibrisol |
| CU F | Cumulo Fibrisol |
| T F | Terric Fibrisol |
| TME F | Terric Mesic Fibrisol |
| THU F | Terric Humic Fibrisol |
| HY F | Hydric Fibrisol |
| M | MESISOLS |
| TY M | Typic Mesisol |
| FI M | Fibric Mesisol |
| HU M | Humic Mesisol |
| LM M | Limnic Mesisol |
| CU M | Cumulo Mesisol |
| T M | Terric Mesisol |
| TME M | Terric Mesic Mesisol |
| THU M | Terric Humic Mesisol |



Tp. 66 R.13 W.4 Mer.

R.13 R.12

PROVINCIAL LOCATION



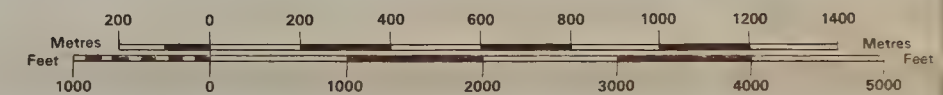
EAST BEAVER LAKE STUDY AREA



Note: Rectified Photo Enlargement Base Township Corners Approximate

STUDY AREA

SCALE - 1:15 000



EAST BEAVER LAKE STUDY AREA

Interpreted by William Hay,
November 1984

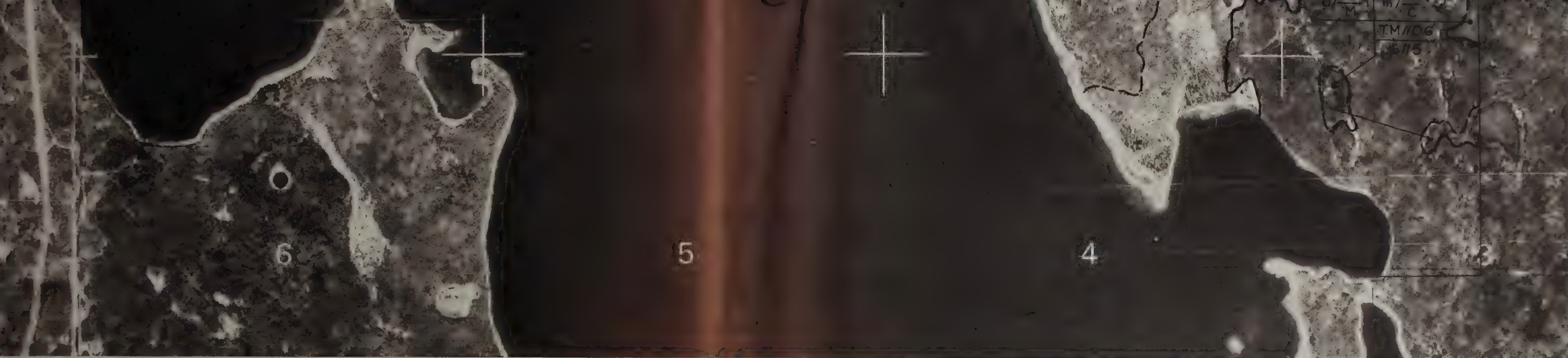
LAND CLASSIFICATION SECTION
RESOURCE INVENTORY AND
APPRAISAL

available from:

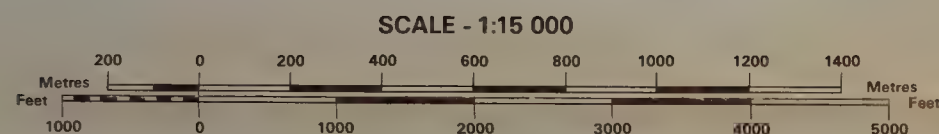
Alberta Energy and Natural Resources
Alberta Map & Photo Distribution Centre
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9945-108 Street
Edmonton Alberta
T5K 2G6

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ENERGY AND NATURAL RESOURCES
Resource Evaluation and Planning Division



R.13 R.12



EAST BEAVER LAKE STUDY AREA

Interpreted by William Hay,
November 1984

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ENERGY AND NATURAL RESOURCES
Resource Evaluation and Planning Division

NOTES

Note 1

The Physical Land Interpretation displays both a hierarchical structure and a spatial patterning of the landscape. Each higher level of classification forms the framework and foundation for the lower levels. The hierarchy or classification levels are as follows:

| Classification Levels | Delineating Criteria | Scale of Derivation |
|---------------------------|---|-------------------------------|
| 1 Physiographic Region | Elevation, relief and structural geologic formations | 1 1 000 000 to 1 3 000 000 |
| 2 Physiographic Subregion | Definite patterns of relief geology and geomorphology | 1 500 000 to 1 1 000 000 |
| 3 Geomorphic System | Recurring patterns of landforms distinguished by Genetic Composition (surficial material) and Surface Expression | 1 50 000 to 1 250 000 |
| 4 Geomorphic Unit | Homogeneous areas of land with inherent properties of Genetic Composition (surficial material) Surface Expression Texture Slope (type and %) Aspect Soil Subgroup (CSSC) and Internal Drainage (CSSC) | 1 5000 to 1 50 000 |

Note 2

The variations of the physical parameters on this map are related to the processes acting at the Geomorphic System level. Colouring can be used to enhance the understanding and facilitate the use of the map. A suggestion for use is colouring the Geomorphic Systems according to genetic composition. Each Geomorphic System is contained within a solid line (System line) and may contain Geomorphic Units with various genetic compositions. Survey all Geomorphic Units within a system and colour the system according to the overall dominant genetic composition. Employ the genetic composition on the left hand side where Symbols of Proportion are present.

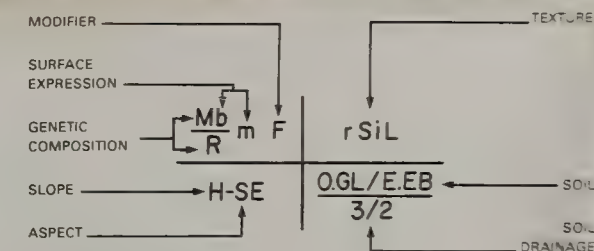
Suggested Colour Scheme:

| Genetic Composition | Colour Code | Genetic Composition | Colour Code |
|---------------------|-------------|--------------------------|--------------|
| Colluvial | Red | Glaciolluvial | Pink |
| Eolian | Yellow | Glaciolacustrine | Light Blue |
| Fluvial | Orange | Fluvioeolian | Light Orange |
| Lacustrine | Blue | Lacustrine Moraine | Light Green |
| Morainal | Green | Fluvio-lacustrine | Tan |
| Undifferentiated | Grey | Bog | Purple |
| Tephra | Burgandy | Fen | Purple |
| Sprinkle (Residual) | Brown | Swamp | Purple |
| Rock | Mauve | Marsh | Purple |
| Ice | Clear | Undifferentiated Organic | Purple |

Note 3

The suggested colouring scheme should not preclude the user adopting other colouring schemes which accentuate individual parameters of interest. The map may be coloured according to variations in one or more parameters (i.e. texture, slope, aspect, etc.) at the Geomorphic Unit level.

SYMBOLIZATION



Symbols of Proportion (=)

The relative proportions of the two-term components are approximately:

| | |
|--------|---------------------------------|
| 50-52% | 45-50% (approximately equal) |
| 55-70% | 30-45% (more than) |
| 70-90% | 10-30% (considerably more than) |

*Symbols of proportion do not necessarily correspond in all four quadrants of the symbolization. Where no symbol of proportion is present between two surface expressions, it implies that both surfaces are coincidental.

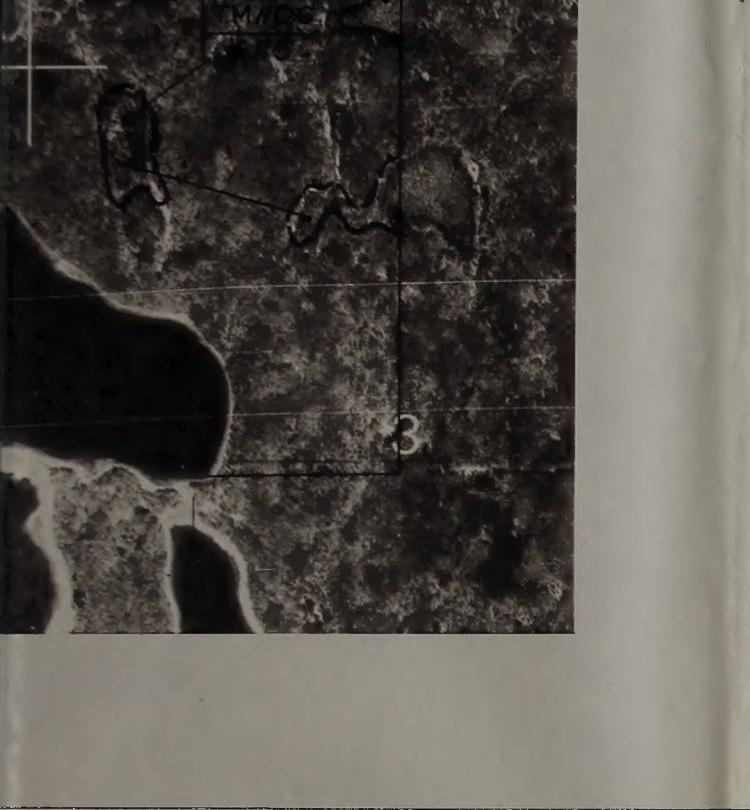
Stratigraphic Symbol (—)

The symbol indicates one material overlying another with the overlying material being either a blanket or veneer.

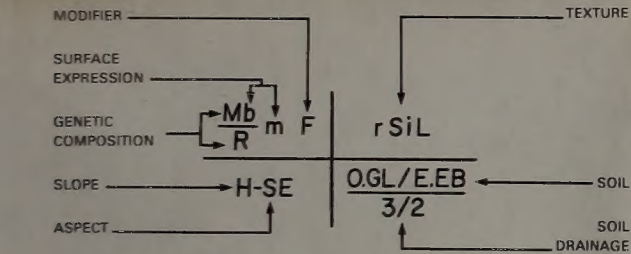
| | |
|--------------|--|
| Mb R m | A morainal blanket overlies bedrock within overall rolling surface expression. |
| F | The genetic material is falling. |
| rSiL | The texture is a rubbly sediment. |
| O.GL/E.EB | The soils are mainly Organic Gray clay soils with significant sections of Elevated bedrock. Significant. |
| 3/2 | The soil drainage is mainly moderately well drained with significant sections of well drained soils. |
| H-SE | Slopes of 46-70% with a significant rise. |

Line Symbolization

| | |
|----------------------------------|-------|
| Physiographic Region Boundary | ————— |
| Physiographic Subregion Boundary | ————— |
| Geomorphic System Boundary | ————— |
| Geomorphic Unit Boundary | ————— |



SYMBOLIZATION



Symbols of Proportion (=, /, //)

The relative proportions of the two-term components are approximately:

50-52% = 45-50% (approximately equal)

55-70% / 30-45% (more than)

70-90% // 10-30% (considerably more than)

*Symbols of proportion do not necessarily correspond in all four quadrants of the symbolization. Where no symbol of proportion is present between two surface expressions, it implies that both surfaces are coincidental.

Stratigraphic Symbol (—)

The symbol indicates one material overlying another with the overlying material being either a blanket or veneer.

$\frac{Mb}{R} m$ - A moraine blanket overlies bedrock with an overall rolling surface expression.

F - The genetic material is failing.

rSiL - The texture is a rubby silt loam.

O.GL/E.EB - The soils are mainly Orthic Gray Luvisols with significant sections of Eluviated Eutric Brunisols.

3/2 - The soil drainage is mainly moderately well drained with significant sections of well drained areas.

H-SE - Slopes of 46-70% with a south-east aspect.

Line Symbolization

Physiographic Region Boundary:

Physiographic Subregion Boundary:

Geomorphic System Boundary:

Geomorphic Unit Boundary:

| | | | |
|--|--|----------------------------|--|
| Crag-and tail | | Gullied | |
| Glacial Striae, ice direction known | | Erratic | |
| Glacial striae, ice direction unknown | | Quaternary Fossil Locality | |
| Moraine ridge (end moraine) | | Anthropogenic site | |
| Minor Moraine Ridges | | Landslide scar | |
| Eskers, direction known | | Karst | |
| Eskers, direction unknown | | Gravel location | |
| Kettled | | Rock Glaciers | |
| Glacial meltwater channel, large (arrow indicates direction of flow) | | Escarpments | |
| Glacial meltwater channel, small (arrow indicates direction of flow) | | Cirque | |
| Abandoned shoreline | | Avalanched | |
| Dunes, active | | Block fields | |
| Dunes, inactive | | | |

NOTE

ONLY PROMINENT EXAMPLES ARE INDICATED AND MAY NOT REFLECT ALL OCCURRENCES

SLOPE

| Symbol | | Percent | Degree (approx.) | Terminology |
|--------|---------|---------|------------------|--------------|
| Simple | Complex | | | |
| A | 1 | 0-0.5 | 0 | level |
| B | 2 | 0.5-2.5 | 0.2-1.5 | nearly level |
| C | 3 | 3-5 | 1-3 | very gentle |
| D | 4 | 6-9 | 3.5-5 | gentle |
| E | 5 | 10-15 | 6-8.5 | moderate |
| F | 6 | 16-30 | 9-17 | strong |
| G | 7 | 31-45 | 17-24 | very strong |
| H | 8 | 46-70 | 25-35 | extreme |
| I | 9 | 71-100 | 35-45 | steep |
| J | 10 | >100 | >45 | very steep |

ASPECT

| Symbol | Class |
|--------|-----------|
| N | North |
| NE | Northeast |
| E | East |
| SE | Southeast |
| S | South |
| SW | Southwest |
| W | West |
| NW | Northwest |

MODIFIERS (EROSIONAL and DEPOSITION)

| | | |
|---|----------------|--|
| A | Avalanched | Slopes modified by frequent avalanche activity. An avalanche is defined as a large mass of snow, ice, soil or rock or mixtures of these materials, falling or sliding very rapidly under the force of gravity. |
| B | Beveled | Surface cut or planed by running water but not underlain by fluvial materials. |
| D | Deflated | The modification of slopes by the sorting out, lifting and removal of loose, dry, fine-grained particles (clay and silt sizes) by the turbulent eddy action of the wind. |
| E | Eroded | Surface crossed by a series of abandoned channels. |
| F | Failing | Modification of surfaces by the formation of tension fractures or by large consolidated or unconsolidated masses moving slowly downslope. |
| G | Glaciated | Initial non-glaciated sections of land which has been scoured and worn down by glacial action. |
| H | Kettled | Deposit or feature modified by depression left by melting ice blocks. |
| K | Karst Modified | Modification of carbonate and other rocks by processes of solution, and of overlying unconsolidated materials by collapse resulting from that solution. |
| M | Mass-wasted | A variety of processes by which large masses of earth material are moved by gravity, either slowly or quickly from one place to another. |
| N | Nivated | Surface modified by frost action, erosion and mass wasting beneath and around a snowbank, so as to produce transverse, longitudinal and circular hollows. |
| P | Piped | Surface modified by small hollows, commonly aligned along routes of subsurface drainage, and resulting from the subsurface removal of particulate matter in unconsolidated materials. |
| S | Soliflucted | Surface modified by the process of slow gravitational downslope movement of saturated, non-frozen earth material behaving apparently as a viscous mass over a surface of frozen ground. |
| V | Gullied | Surface modified by fluvial erosion, resulting in the development of parallel and sub-parallel, steep-sided and narrow ravines in both consolidated and unconsolidated materials. |
| W | Washed | Modification of a deposit or feature by wave action in a body of standing water, resulting in lag deposits, beaches of lag materials and wave-cut platforms. |

SOILS

Brunisolic Order

| | |
|-------|-----------------------------------|
| MB | MELANIC BRUNISOLS |
| OMB | Orthic Melanic Brunisol |
| EMB | Eluviated Melanic Brunisol |
| GLMB | Gleyed Melanic Brunisol |
| GLEMB | Gleyed Eluviated Melanic Brunisol |
| EB | EUTRIC BRUNISOLS |
| OEB | Orthic Eutric Brunisol |
| EEB | Eluviated Eutric Brunisol |
| GLEB | Gleyed Eutric Brunisol |
| GLEEB | Gleyed Eluviated Eutric Brunisol |
| SB | SOMBRIC BRUNISOLS |
| OSB | Orthic Sombic Brunisol |
| ESB | Eluviated Sombic Brunisol |
| DUSB | Duric Sombic Brunisol |
| GLSB | Gleyed Sombic Brunisol |
| GLESB | Gleyed Eluviated Sombic Brunisol |

| | |
|----------|-----------------------|
| HUM | Humic Mesisol |
| LMH | Limno Mesisol |
| CUM | Cumulo Mesisol |
| TM | Terric Mesisol |
| TFIM | Terric Fibric Mesisol |
| THUM | Terric Humic Mesisol |
| HYM | Hydric Mesisol |
| HUMISOLS | |
| TYH | Typic Humisol |
| FIH | Fibric Humisol |
| MEH | Mesic Humisol |
| LMH | Limno Humisol |
| CUH | Cumulo Humisol |
| TH | Terric Humisol |
| TFIH | Terric Fibric Humisol |
| HYH | Hydric Humisol |
| FOLISOLS | |
| TYFO | Typic Folisol |

Podzolic Order

| | |
|--------|---------------------------|
| HFP | HUMO-FERRIC PODZOLS |
| O.HFP | Orthic Humo-Ferric Podzol |
| LU.HFP | Luvic Humo-Ferric Podzol |
| SM.HFP | Sombic Humo-Ferric Podzol |

Regosolic Order

| | |
|--------|------------------------------|
| R | REGOSOLS |
| OR | Orthic Regosol |
| CUR | Cumelic Regosol |
| GLR | Gleyed Regosol |
| GLCUR | Gleyed Cumelic Regosol |
| HR | HUMIC REGOSOLS |
| ORH | Orthic Humic Regosol |
| CUHR | Cumelic Humic Regosol |
| GLHR | Gleyed Humic Regosol |
| GLCURH | Gleyed Cumelic Humic Regosol |

Solonchic Order

| | |
|--------|--------------------------------------|
| SZ | SOLONETZ |
| BSZ | Brown Solonetz |
| DBSZ | Dark Brown Solonetz |
| BLSZ | Black Solonetz |
| ASZ | Alkaline Solonetz |
| GLBSZ | Gleyed Brown Solonetz |
| GLDBSZ | Gleyed Dark Brown Solonetz |
| GLBLSZ | Gleyed Black Solonetz |
| SS | SOLODIZED SOLONETZ |
| BSS | Brown Solodized Solonetz |
| DBSS | Dark Brown Solodized Solonetz |
| BLSS | Black Solodized Solonetz |
| DGSS | Dark Gray Solodized Solonetz |
| GSS | Gray Solodized Solonetz |
| GLBSS | Gleyed Brown Solodized Solonetz |
| GLDBSS | Gleyed Dark Brown Solodized Solonetz |
| GLBLS | Gleyed Black Solodized Solonetz |
| GLDGS | Gleyed Dark Gray Solodized Solonetz |
| GLGSS | Gleyed Gray Solodized Solonetz |
| SO | SOLOD |
| BSO | Brown Solod |
| DBSO | Dark Brown Solod |
| BLSO | Black Solod |
| DGSO | Dark Gray Solod |
| GSO | Gray Solod |
| GLBSO | Gleyed Brown Solod |
| GLDBSO | Gleyed Dark Brown Solod |
| GLBLSO | Gleyed Black Solod |
| GDGSO | Gleyed Dark Gray Solod |
| GLGSO | Gleyed Gray Solod |

EAST BEAVER LAKE

[illegible]



N.L.C. - B.N.C.



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